This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

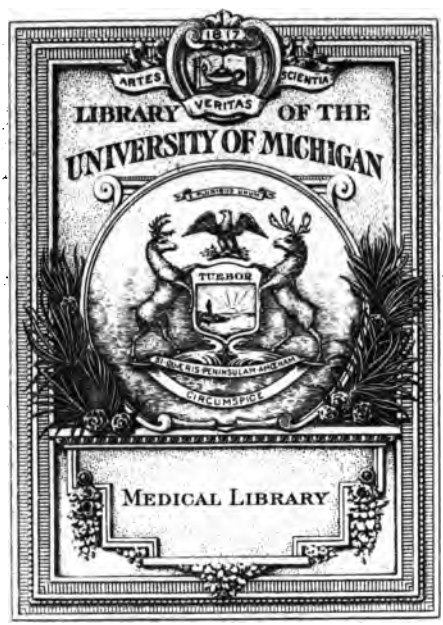
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`


1817
ARTES
VERITAS
SCIENTIA
LIBRARY OF THE
UNIVERSITY OF MICHIGAN
TUEBOR
SI QUÆRIS PENINSULAM AMŒNAM
CIRCUMSPICE
MEDICAL LIBRARY

[illegible]
N E [illegible]
[illegible]

THE

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-FOURTH ANNIVERSARY,)

Held at Concord June 6th and 7th, 1854.

CONCORD:
STEAM PRINTING WORKS OF McFARLAND & JENKS.
1854.

THE

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-FOURTH ANNIVERSARY,)

Held at Concord June 6th and 7th, 1854.

CONCORD:
STEAM PRINTING WOKKS OF McFARLAND & JENKS.
1854.

Medical
Huston
4-5-37

OFFICERS

OF THE

NEW-HAMPSHIRE MEDICAL SOCIETY,

FOR

1854.

President.

JOHN S. FERNALD, M. D., Barrington.

Vice President.

ADONIRAM SMALLEY, M. D., Lyme.

Secretary.

E. K. WEBSTER, M. D., Boscawen.

Treasurer.

SILAS CUMMINGS, M. D., Fitzwilliam.

Councillors.

Charles P. Gage,	William P. Stone,
P. A. Stackpole,	Levi G. Hill,
Alonzo F. Carr,	Thomas H. Marshall,
J. C. Eastman,	E. L. Griffin,
George B. Twitchell,	John O. French,
John Clough,	J. R. Smiley,
William H. H. Mason,	J. F. Hall.

Censors.

George W. Garland,	B. H. Phillips,
Charles F. Elliot,	J. H. Smith,
Edward Spaulding,	James Danforth,
J. H. Crombie,	J. P. Whittemore,
Frederick Boyden,	James Batcheller,
Luther C. Bean,	Adams Moore,
Moses R. Warren,	J. F. Hall.

medical
Huston
4-5-37

OFFICERS

OF THE

NEW-HAMPSHIRE MEDICAL SOCIETY,

FOR

1854.

President.

JOHN S. FERNALD, M. D., Barrington.

Vice President.

ADONIRAM SMALLEY, M. D., Lyme.

Secretary.

E. K. WEBSTER, M. D., Boscawen.

Treasurer.

SILAS CUMMINGS, M. D., Fitzwilliam.

Councillors.

Charles P. Gage,
P. A. Stackpole,
Alonzo F. Carr,
J. C. Eastman,
George B. Twitchell,
John Clough,
William H. H. Mason,
William P. Stone,
Levi G. Hill,
Thomas H. Marshall,
E. L. Griffin,
John O. French,
J. R. Smiley,
J. F. Hall.

Censors.

George W. Garland,
Charles F. Elliot,
Edward Spaulding,
J. H. Crombie,
Frederick Boyden,
Luther C. Bean,
Moses R. Warren,
B. H. Phillips,
J. H. Smith,
James Danforth,
J. P. Whittemore,
James Batcheller,
Adams Moore,
J. F. Hall.

Corresponding Secretaries.

L. M. Knight,	George B. Twitchell,
E. L. Griffin,	Harrison Eaton,
C. H. Shackford,	John Clough,

J. F. Hall.

Delegates to Dartmouth College.

W. W. Brown,	J. F. Sargent.

Delegates to the American Medical Association.

P. A. Stackpole,	John Clough,
George B. Twitchell,	B. H. Phillips,
Silas Cummings,	James Batcheller,
Levi G. Hill,	Edward Spaulding,
Charles P. Gage,	F. P. Fitch,
T. H. Marshall,	W. W. Brown,
E. L. Griffin,	B. W. Sargent,

J. C. Hanson.

Orators.	*Substitutes.*
A. H. Robinson,	J. O. French,
William P. Stone.	E. L. Griffin.

PROCEEDINGS.

THE sixty-fourth anniversary of the New-Hampshire Medical Society was held at the Court House, in Concord, on Tuesday and Wednesday, June 6th and 7th, and was fully attended.

The Society was called to order by the President, Prof. A. SMITH. The proceedings of the last annual meeting being read by the Secretary, and accepted, proceeded to the election of Fellows. The following persons having been recommended by the Council, were elected, took their seats, and participated in the doings of the meeting:

Frank B. Ayer, M. D., Meredith Bridge.
M. R. Warren, M. D., Wolfborough Bridge.
James R. Smiley, M. D., Grafton.
Nathan Call, M. D., Boscawen.
Adams Moore, M. D., Littleton.
Ira S. Chase, M. D., Bristol.
William Walker, M. D., North Barnstead.
James Danforth, M. D., New Boston.
Gurley A. Phelps, M. D., Temple.
Valentine Manahan, M. D., Springfield.
George Sanborn, M. D., Sandwich Centre.
William Laighton, M. D., Portsmouth.
William A. Smith, M. D., Thornton.
William B. Stevens, M. D., Concord.
Andrew J. Gilson, M. D., East Jaffrey.
Charles L. Hartwell, M. D., Farmington.
Samuel G. Dearborn, M. D., Milford.
Alfred A. Gerrish, M. D., Mt. Vernon.

THE

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-FOURTH ANNIVERSARY,)

Held at Concord June 6th and 7th, 1854.

CONCORD:
STEAM PRINTING WORKS OF McFARLAND & JENKS.
1854.

THE

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-FOURTH ANNIVERSARY,)

Held at Concord June 6th and 7th, 1854.

CONCORD:
STEAM PRINTING WOKKS OF McFARLAND & JENKS.
1854.

Medical
Huston
4-5-37

OFFICERS

OF THE

NEW-HAMPSHIRE MEDICAL SOCIETY,

FOR

1854.

President.

JOHN S. FERNALD, M. D., Barrington.

Vice President.

ADONIRAM SMALLEY, M. D., Lyme.

Secretary.

E. K. WEBSTER, M. D., Boscawen.

Treasurer.

SILAS CUMMINGS, M. D., Fitzwilliam.

Councillors.

Charles P. Gage,	William P. Stone,
P. A. Stackpole,	Levi G. Hill,
Alonzo F. Carr,	Thomas H. Marshall,
J. C. Eastman,	E. L. Griffin,
George B. Twitchell,	John O. French,
John Clough,	J. R. Smiley,
William H. H. Mason,	J. F. Hall.

Censors.

George W. Garland,	B. H. Phillips,
Charles F. Elliot,	J. H. Smith,
Edward Spaulding,	James Danforth,
J. H. Crombie,	J. P. Whittemore,
Frederick Boyden,	James Batcheller,
Luther C. Bean,	Adams Moore,
Moses R. Warren,	J. F. Hall.

in London, on the establishment of a Perkinistic Institute, in which this mode of cure was to be tried, vouchers were found for them in every part of England, and among the names attached to the communication were eight professors in four different universities, twenty-one regular physicians, nineteen surgeons, thirty clergymen, twelve of whom were Doctors of Divinity, and numerous other characters of equal respectability. Great men may imagine they can by their influence build up such systems of medicine as they please, yet all know what a lamentable failure befell the Tractor humbug, which for a time opened with flattering auspices. So it will be with all the irregular medical forms they choose to foster. What do, then, learned men of other professions know of our art? I dare say that many others, with myself, have felt a degree of surprise and often mortification at the monstrous ignorance which too generally prevails among educated men, concerning our profession. Instead of looking to them as barriers against the progress of empiricism, as men who would probably sustain a learned and ancient profession, we have too often found their opposition among our greatest obstacles, and their waywardness the boast and glory of Quacks. Our greatest bulwark against the progress of medical charlatanry is in the plain, commen sense of the thinking and well-informed part of the community, who chiefly labor for their daily bread. We have nothing to fear if the triumphant language of the homœopathist may be true, that the great, the learned, the beautiful and good of our race, are adherents to their *sham;* we only wish them a safe deliverance from danger and death in severe acute diseases, when prompt and heroic treatment, which can only save, cannot be employed.

It is assiduously urged that our profession is under obligations to many of the "new fangled" systems for many new facts and useful truths. It is said that homœopathy has induced our profession to use less medicine than formerly, also less frequently and in less doses; and I know that many physicians have assented to this gross assumption. But such is not the fact. This is the result of the progress of our art, and would have as inevitably occurred if no such person as Hahnemann had ever appeared. Homœopathists boast of the potency of their medicines, and pre-

tend to accomplish as much by their infinitesimals as we do by larger doses, by no means admitting that their medication is the mere shadow of a reality, as we suppose; and as to the frequency of the doses, I am yet to learn that any kind of a prescriber has exceeded them in this particular; and yet they would teach us the useful lesson of over-medication! It should be borne in mind, that we are just emerging from a state in which medical men had great faith in the properties of medicine, and used it with a liberal hand. Rush, who had very much to do in establishing such a belief, considered that wonderful discoveries were yet to be made in the power of remedies, so that some of the most fatal maladies would be cured, and human life be greatly prolonged. To these notions I attribute much of that credulity among the people which makes them still rely so much on the power of medicines, and so little on the curative efforts of nature. The physician has outgrown the error, but it will require a generation to eradicate it from the people. To these notions, I might almost say, that with the physician has succeeded a skeptical age, so that medicine is now only viewed as one of the means of cure, and as entirely subservient to nature and science.

Are we blind to truth, too conservative, because we are unwilling to acknowledge an indebtedness to any of the forms of empiricism, when we know to the contrary, and hold them all in the utmost detestation and loathing? The very few truths they contain do not save them from the most utter contempt. Why need we go to any sect or class to learn medical truth? It is ours the world over. Any useful fact or discovery, by whomsoever made, belongs to us, and we have the undoubted right to say that if there is any true system of medicine, we possess it. On what better basis could any profession be founded than ours—on antiquity, on science, and on experience?

It is not for our great men, our great writers, or distinguished literary individuals, with only a mushroom knowledge of this subject, to decry us as ignorant and deluded, without science or experience. It is a vastly more melancholy reflection that all those persons who are led astray by any of these absurd systems, possess minds, however cultivated, yet after all not fairly and fully developed; and it may too be dimmed with a shade of obliquity

that makes it grateful to them to degrade and pull down a profession that has always been a blessing to the human race. This will not seem very improbable when we reflect for a moment that persons excelling in one branch of study may be deficient in others; a good lawyer might know very little of medicine, or a clergyman of any of the appliances of the medical art to the body, while he prescribes exceedingly well for the soul. The most gifted minds have no intuition on this subject; if they do not study and observe, they cannot know. It is a poor philosophy that would bolster up a system by such opinions as these. Give me rather the opinion of the people, who are careful and observing. They stand by regular medicine, discarding the *pathies* and *isms* as "unclean things." Would that the principles of conservatism could find place among those who favor and sustain the medical delusions of our day, or at least that they should be *modest* who are so lamentably *ignorant.*

I have spoken of the conservatism necessary to observe towards the various popular forms of empiricism; a conservatism founded on reason, science and common sense; and no conservatism can be stronger than that we should hold on to our principles with steadfastness. We wish no favor, instruction or intercourse with any of these popular delusions; and if they would approach us, there is but one way, and that is through mental discipline, knowledge and experience.

I propose to speak next of conservatism in relation to the conduct and character of the individual physician. I have seen this principle so strong, that the physician would not investigate nor examine in any manner any of the boasted principles of the new modes of medication. I know generally it is best to keep aloof, yet we cannot be indifferent to what we even know to be monstrously absurd. Then, our interest prompts us, for our own success and safety, to watch the doings and progress of error, to keep apprized of all their sham principles, and be able and ready on every occasion to unmask their hypocrisy and villainy. There is one thing it may be well to bear in mind, that there is always a small modicum of truth in every form of quackery; that some good may come of their errors and follies, and that it is the province of our profession to gather up knowledge, facts and ex-

perience from whatever source they may come. I do not mean by this that the physician should not hate and loathe every form of quackery, only he should know the object of his contempt.

It requires no great reach of intellect to discover that ignorance, avarice and rascality are at the bottom of them all; that bold pretension and reckless promises are the secret of their success. Now, there is no medical truth or plan of medication under the sun, better than that we now employ, that we should not at once adopt, let who will make a hobby of it, or come from what source it may. All remedies, the world-wide, are ours. Does an "irregular" practice successfully in some single disease, treating it according to true principles, he is only "stealing our thunder;" and could he be governed in every case by true principles, he would soon lose this loathsome *soubriquet* that now attaches to his class. Unlike the systems of charlatanry, we are tied to no prescribed course or theory, but we are bound to know and use *every thing* that promises to be useful. I fear we often cause quackery to flourish by our excessive contempt of it; and from a too scrupulous care to avoid any of their modes or plans of cure, we give the people to understand that they possess a different art, and have a class of remedies of which we know nothing. How industriously is it circulated that the concentrated or "mother-tinctures" of homœopathy, are articles which we do not use; that their remedies are quite unknown to us! As though we were not as learned in *materia medica* as they are, and not pharmaceutists enough to make tinctures and compounds as powerful!

There is another species of conservatism less justifiable perhaps than that to which I have just alluded. I mean the fear, distrust and dread which many have of innovation, new modes of cure, new theories, or new remedies. In these respects, no doubt, there are often extravagances and follies that need to be guarded against; wild schemes, strange doctrines, and untenable theories often start up, and unless guarded against and carefully scrutinized, they gain an ascendancy wholly unmerited. We often see a kind of mania possess the profession, which I cannot characterize better than by mentioning a few of them. The *bleeding mania*, which a few years since pervaded almost the

entire profession, was employed and relied on as a remedy in almost every malady to which we are subject, with hardly the exception of decidedly anemic cases. The famous prescription of Sangrado, in Gil Blas, of bleeding and warm water indiscriminately for every malady, was hardly more absurd than this. It may be we have now too much gone to the other extreme, and need the aid of conservatism to keep us right.

The *medicine mania*, to which I have already alluded, had such vogue among the elder physicians, and caused the poor invalid to be so dosed and drugged, as sometimes to increase his danger, certainly to compromise all comfort and ease, has nearly passed by. Have not our remedies too often fallen into unmerited disrepute, and our faith often been succeeded by an inexcusable skepticism? It is a skillful man who knows how to use medicine accurately and seasonably; now to administer with an unsparing hand, now to deal sparingly or withhold altogether. This extravagance could not live in the light of modern science and pathology; it is one of the progressive steps in our profession.

The *mania for new remedies*, which is peculiarly one of the whims of our day, professes to cover almost the entire therapeutic field to the exclusion of all the old remedies. There may be excess and folly here. The old remedies, like old friends, must be retained. It would not be safe, in the present state of the pharmaceutical art, to imagine that we can wholly rely upon the new agents. We may, however, be too conservative, discarding all the new remedies, till they are forced upon us by the universal experience of the profession. Beck's Materia Medica, a recent, and in some respects an excellent work, is marred by its slight and imperfect notice of the new medicines. The late Prof. Beck ignored all the new remedies in his lectures, until they had attained a firm place with the profession; and his editor*, who has presented this volume to the public from his manuscript, partially prepared before his death, was obliged to supply the deficiency. A conservatism like this would well entitle a man to the appellation of a medical "old fogy," for slow indeed would be the progress of medical science were such examples common. There is a certain point to which we should go in this matter,

*Prof. Gilman.

both consistent with the safety and welfare of our patients, and our desire for the advancement of medical science.

In this connection I may mention the extraordinary reputation enjoyed by some single articles of the *materia medica* in curing particular diseases. The *Chimaphila*, for instance, during the last century was regarded almost as a specific in dropsy, yet is now only considered a mild tonic, with feeble diuretic properties. The *Uva Ursi*, which was so lauded in calculous affections of the urinary organs, has ascribed to it now little more than mere diluent properties. The extraordinary powers attributed to the *Buchu* when it first came into vogue, is another example; but who has ever seen any of its wonderful properties exemplified in practice? The wonderful and fictitious power which *Digitalis* was supposed to exercise upon phthisis, and which was so very popular a few years since, is now quite exploded, giving rise to many just doubts as to the sedative powers of this medicine over the circulation. No doubt a lessened pulse followed its use; so it has followed the use of other medicines. I had recently two cases of pneumonitis, on the subsidence of which the pulse in one case fell to 38 and in the other to 45 beats a minute, and in neither case had digitalis been used. At the present time there is no article of the *materia medica* which has attributed to it more fabulous and fictitious properties than *Sarsaparilla*. With the profession its reputation has been high as an alterative in scrofulous affections; with the people it has formed the basis of an innumerable host of nostrums that infest every part of our country; and yet it is more than probable that, as to its medicinal power in disease, it is inert. I might mention many other articles that owe their standing to a fertile imagination, and which hold their place in the books with a very questionable and uncertain character. Against all such extravagances and errors I would guard the profession by a healthy conservatism, which would strip off the false plumage from every article which experience has not tested; a conservatism that would scrupulously examine every "propter hoc," and not consider every "post hoc" sufficient to establish the effects of any medicine.

It is no less necessary, and yet far less than formerly, that

some guard should be interposed to many of the theories that take possession of the profession. Such has been the advancement of our art, and the progress of physiological and pathological science, within the few last years, that the time is past when such theories as the Brunonian or Broussaian could sway the world, as they once did. And yet we are not altogether free from being warped and moulded according to some prevalent medical dogma that comes with authority. It is pleasing to think that science is tending to make stable and sure much that was formerly loose and uncertain; and that, also, with new truth and light, there is less and less excuse for our errors and extravagances. Though we may feel comparatively safe in the great fundamental principles, fearing no Paracelsus or Hahnemann to lead us astray, yet we need to be guarded as to the minor matters of practice; for how often does some new mode or plan of medication spring upon us at once, highly lauded by great names, and coming in our best medical journals. We are all impelled to try it; very soon it proves a mere abortion, not perhaps till after infinite mischief to some poor mortal, who has been made a martyr to the experiment. A question might be raised, When are we to receive or reject any new mode or plan of treatment? We are bound to receive and adopt any method better than the one we employ, which is strictly in accordance with medical principles and common sense. Doubtless there are now many modes and plans in our practice which a strict conservatism would banish, were they just now knocking for admission; but once in, they hold their place till reformed by the progress of science, or supplanted by a more rational course.

My limits will only permit me to advert to two topics more: I mean an unworthy conservatism in relation to *medical associations* and *medical literature*. We see in every part of our State well educated physicians standing aloof from all medical associations, and having no intercourse with the profession only as they are forced into an occasional consultation. Our Society will not probably number one fifth of the regular physicians of New-Hampshire. We have made repeated efforts to bring them in, both by personal application and by a written invitation, in which were sketched the advantages to the individual in its scientific and

social character, but all has been unheeded. Some are deterred by unjust prejudices, others by unreasonable expectations of improvement from the exercises of our body. Some see in our Society the meeting of a clique, which directs and governs all its movements; others again see nothing but an effete and lifeless body, unworthy the ambition of any intelligent and aspiring man. I think I may say with great truth, that to us, who have been in the habit of attending the meetings most frequently, they have been pleasant, instructive and social. We do not regret our long journeys, that give us an opportunity of making the acquaintance of many of the same profession, and exchanging the pleasant, social greetings, beside the many new hints and facts we gather up, even if our meetings are occasionally wasted in discussions upon useless or trivial topics. But who of us is not benefited at every meeting by the exercises of this body? and who does not gather up fresh knowledge from our discussions? Yet the great mass of the physicians of our State are too conservative to join us. It seems to me they are blind to their own interests.

A plodding and continuous practice, with only the incidents that belong to it, is not enough to keep the mind in an active and cheerful state. We do not wish to live as physicians only, without an aspiration beyond the profession, to wear our lives away in our small sphere like the dray horse; but as *men*, who have social and moral natures, who feel their liberty and right to enter, if they wish, the political arena, or engage in any of the exciting questions of the day; or from their position to lead and give tone to society, rather than be mere creatures of the caprice and pleasure of the people. The advantages of medical associations are too obvious to require defence. They infuse life and spirit into the jaded, give courage and ambition to the young; they do away the peculiar antagonism of the profession, and make us forbearing and just toward one another. But some think these advantages are not commensurate with their expense and trouble. It is very true, that when we are alone, and standing as a kind of oracle among our friends, (it may be, too, with a wondrous small capital of knowledge and acquirements,) we become inflated, and, in apostolic language, "begin to think we are something

when we are nothing, deceiving ourselves." It is a dangerous conservatism that leads men to take this isolated position; to imagine that they can pursue this profession alone, unaided by the advice, counsel and sympathy of their brethren. It is inevitable that such a course ends in professional deterioration; for the excellent motto of the American Medical Monthly, "*non progredi, est regredi*," not to go forward is to go backward, is a truth in full accord with all experience.

To one other point I must give a brief notice; I mean the science and literature of the profession. It is by these we are to sustain ourselves amid the popular schemes that may seize upon the people, or against any of the wild notions or chimeras of the profession itself. Our art is founded on the strictest principles of science, however imperfectly we may apply them. No profession has a more solid and permanent basis.

Never, in any period of the world, has such progress been made as within a few past years; so much so, that were some of the fathers of medicine to be revived, I doubt whether they could read and understand much of our present literature. It is impossible for any one now to cling to the ancient forms of our medical literature, and consider himself a whole man in the profession; it is so reformed by its modern discoveries, so out of date in its terms, and often so very absurd, with our present views in its character. A student in the physiology of twenty-five years ago will find he has to *re*study, and investigate a new science. And what wonderful advance has been made! Conjectural and visionary explanations of phenomena have given place to investigations and discoveries, pushed almost to the ultimate particles of the human body.

Anatomical science would seem more fixed, and yet what improvement in Histology, which has for some years been taught in the New Hampshire Medical Institution, and is now making its way into other medical schools. Compare one of the best modern works on Surgery, for instance, Miller or Pirrie with Dorsey, Bell, Liston, or even Sir Astley Cooper, and what striking advance is here. How many are the new principles of practice and pathology, showing us that it is not a mere manual system, that needs neither head nor heart, but that it involves science of

the highest kind: the science of mathematics as well as the science of ethics.

I may be excused if I allude to one more branch in which I am more particularly interested—that of Materia Medica. What changes are here! Since the days of Cullen even, what fabulous accounts of medicine, and strange, inconsistent powers attributed to it, have been swept away, and what new light has dawned upon this branch through the progress of analytical chemistry! Progress is now being made to separate from every article its essential principle, divested of course of its usual accompaniments of starch, resin, wax, ligneous matter, &c. With these essential principles, compressing in such a concentrated form all the medical properties of the cumbrous article in its crude state, we may count upon a new era, at least in the therapeutic art. With what delight would not Cullen have hailed such a discovery as this, and with what admiration would he not have looked on modern chemistry, as affording inestimable services to medicine. How are we to keep ourselves apprized of all these changes and improvements, without the books recently issued on the various branches, and also with the various medical journals of the day? But we have books, such as were standards in our pupilage, yet no one reads them now; they are out of date; the progress of the art has left them in the rear. I have no great respect for old books. I much prefer the modern, that embody all their intrinsic value, divested of their heavy and cumbrous dross. If age adds value to wine, it much detracts from medical books; it makes them really worthless.

All this is very plain. In the progress of science, new light breaks in upon subjects before dark, and the old meaningless names of diseases are jostled aside and supplanted by those derived from the part diseased, which both designates the structure implicated and the disease itself. Thus with the remedies, they are plain, when kept within the pale of the U. S. Pharmacopœia, but if we look into the old books we find we often doubt what is meant by the jargon there used for their remedies; especially as to the chemical class, we are in a perfect quandary. An old medical book is like an old almanac; both have been useful in their time, and both have ceased to be con-

sulted, only as matters of curiosity. I hope this will not be deemed irreverent to the ancient worthies who have done so much for our profession; it is enough for them to say, with their light and opportunities, they did well for their age, but did not come to all the truth. We, who live in a period of great advance, in which many great truths have been unfolded, wholly unknown to them, cannot of course respect their theories and hypotheses, by which they attempted to explain what science has clearly developed to us. Most of the writings of Hippocrates and Galen, stupendous works both in size and talent, yet lie buried in their Greek or Latin dress. It is not desirable, nor indeed would it be profitable, to bring out these musty old tomes, and ask the profession to decypher them. So much are they composed of useless and futile discussions, absurd theories, foolish questions and puerilities, that we should look upon them with more contempt than respect. I look upon every new medical book of talent as a positive advance in our profession. The new work, when properly prepared, adopts all the discoveries and improvements that have ever been made, and of course helps to "post one up" in that branch thoroughly, to the time of its publication. We must not be so conservative as to shut our eyes against the advantages afforded us by modern books, for such is the condition of things at this time that without them we shall inevitably find ourselves lagging behind our more industrious and studious brethren, and be likely to lose our medical standing.

I shall advert to but one topic more,—the medical periodical literature of the day. We know how essential this is to the progress of our art, and how much it aids in bringing out and recording all the important facts and hints that occur, ready at hand, when a sufficient number have accumulated, to be used in developing medical truth. It is a means by which we may also record the results of our own experience, and perfect ourselves in arguing, and expressing our thoughts in written language. It keeps us advised of all the important passing events in our sphere, heralds forth fresh discoveries, new modes of treatment, new uses of old articles, new phenomena, and strange appearances. We learn the advent of new books, we are advised of their value, whether they will repay careful perusal. They

stand the worthy exponents and representatives of our body, ready to vindicate us, and do battle, if necessary, among all the hostile legions of empirics and "irregulars" of every grade. By their ability, dignity and bearing, they give character and power to the profession. They infuse a right spirit into our body, a spirit of inquiry and observation, of perseverance and enterprise, that are of incalculable value. It is the life's blood of the profession, and none but a low and unworthy conservatism could urge a word against such important auxiliaries. Our medical periodical literature must be sustained, and it can be without much burdening the profession. It cannot be said they are too numerous. They have thus far only kept pace with the demand, and hardly equal the periodical literature of other great interests in society.

At the present time no physician, who has ambition to claim a respectable standing, can really attain it, unless he is careful to be thoroughly versed in and familiar with every thing relating to his vocation. How shall he do this? No man can do it without effort; he must read and think, and while striving to learn much unknown before, also to *un*learn much that has hitherto constituted his medical capital, which he is now satisfied is wrong and unfounded. The medical journals must be carefully read, new books must be procured and consulted, and every discovery and improvement thoroughly investigated. We should have a horror of falling behind the age. The physician will find no ease: his scanty leisure from business engagements will leave little time for study, none for indolence, for gossiping or lounging about the town or village; and does he wish to be a *full* man, he will industriously gather up these fragments of time, and amid fatigue, embarrassments and interruptions, yet acquire a large amount of knowledge.

I have thus briefly sketched the beneficial effects of conservatism in medicine, when truly exercised. We need have no fear for the future, though the course of the profession may have been, and is often now, somewhat erratic; yet in the end the progress of science, the solution of all mystery, the high degree of culture required of every member, will insure a learned body that must command respect. Perhaps the other professions will

sometime see we are like them; founded on knowledge and science; and possibly think us entitled at least to an equal respect with the systems of empiricisms that infest society. It is the "know nothings" in the profession, the men who are subservient to the caprices and prejudices of the community; those who are ever trimming their sails to catch the first breath of popular opinion, so as never to be found in minorities, or in any way opposed to their patrons; who, instead of leading, as their qualifications and standing should entitle them to do, are led by the ignorance, credulity and arrogance of their employers—it is these men who bring contempt upon our calling, and induce many of the people to class us on a level with empirics. We shall never fully command respect and confidence until we show ourselves an enlightened, scientific body, actuated by principle and justice, and also as self-possessed and self-relying men, ready for any emergency that can be surmounted by any human means. We rejoice to believe that this improvement is in ample progress, and that a great portion of our profession at this time are well-educated, growing men; men who have never, and never will bow to unworthy acts or management for business; who would rather be poor than mean, or starve than be knavishly artful—men who, in the words of Shakspeare, will never

> "Bend the pliant hinges of the knee,
> That thrift may follow fawning."

While mindful of our obligations to the profession, let us zealously cherish and remember our duties to ourselves. We should be *men*, as well as physicians, of the highest and noblest character; Christians as well as philosophers; in truth, we cannot be true philosophers unless we are also true Christians. It has been said that "the christian is the highest style of man." I would have it said, "the Christian physician is the highest style of man," for there is no profession nor condition of life which piety does not honor and adorn. Then will our professional lie in the line of all our other duties, and thus we shall be enabled to live true and honorable lives, "serving our day and generation" faithfully, and when summoned

> "To shuffle off this mortal coil,"

in exchange for the habiliments of death, we can meet the event in cheerful resignation, and say, in the noble words of M. Rickard, late Professor in the Paris School of Medicine:

"I have occupied well my day! All my life has been consecrated either to things useful, or to aggrandize the sphere of human knowledge. I have done the best I could with what was given to do here below! My conscience is tranquil."

THE POETRY OF THE MEDICAL PROFESSION:

AN ORATION, *pronounced before the New-Hampshire Medical Society at its Annual Meeting, June* 7, 1854, *by* ANDREW MCFARLAND, M. D., *Physician and Superintendent of the Illinois State Hospital for the Insane.*

THE definition of poetry may be given as: That faculty of the human mind which discovers new and extraordinary relationship in objects different from those which are at first apparent. The poet, according to this definition, may be regarded as the individual whom nature admits to her confidence—whom she constitutes her seer—to whom she reveals the deep significance which opens wide beneath the scanty indices which she discloses to ordinary observers, and whose countenance she illumes with a kindred light with that which Israel's lawgiver bore from the trembling mount of God. The greatest poet of all time obviously had this definition in mind, ascribing to him the possession of that gift which

> "Finds tongues in trees,
> Books in the running brooks,
> Sermons in stones, and good in every thing."

I propose to consider as the first division of my topic, *The subject on whom the Art of Medicine is exercised; or, the poetical attributes of Man himself.* God looked upon the last product of his hands and pronounced it "very good." For numberless ages creative wisdom had been calling into being a succession of animate forms, from the simplest mollusc of the silurian epoch to the symmetric mastodon, who yielded his lordly sway over creation, and his generic existence at the advent of man himself. Each successive addition revealed something yet more wonderful in its Maker. New animal powers were developed with each new species launched on the field of creation, till man completed the ascending scale of creative excellence, and the Almighty declared himself, in the language above quoted, satisfied with the work of his hands. Geology has taught us for how many cycles creation's work was going on; and, perhaps, it is not profanity to declare that in the myriads of species created, and made extinct, the divine hand was gradually approaching the achievement of its own high standard of excellence. Thus created, man is ushered on the stage of living existence, and made to sustain the first part in the sublime drama which is to be drawn out from the moment of Adam's first conciousness, till

> "These our actors
> Are melted into air, into thin air;
> And, like the baseless fabric of this vision,
> The cloud capped towers, the gorgeous palaces,
> The solemn temples, the great globe itself,
> Yea, all which it inhabit, shall disclose,
> And like this insubstantial pageant faded,
> Leave not a rack behind."

Let us now individualize this wondrous being, and, with a single one of his species before us, inquire how far he may be worthy of the exercise of this high department of science. I can do this to better advantage to myself by having in the mind's eye, as a model of the picture I wish to draw, a prominent and well known individual.

Those who knew him when young declare him to have been the type of manly beauty. The unknown sculptor of the Belviderian Apollo might have taken him for the model of that statue which attracts the world to the saloons of the Vatican. Yet this

was the least of his natural excellencies. He possessed a mind of such delicate, and yet masculine structure, that what were tasks to other youth seemed to be to him the mere sober interludes of a perpetual holiday. Toil he apparently knew not. The exactitude of his scholarship showed how faithfully he had applied to his task the needful effort, and how large was the surplus of mental power. He swept the lyre with a few masterly touches, and the world still drinks the melody of its music, although the string has long since ceased to vibrate.

He poured out the richness of his stores of learning, and, for years, the highest literature of the country acknowledged him as its ornament. Into science, philosophy, politics, religion, wherever the rays of his genius were thrown, all looked with increased delight, for all were newly instructed. He crossed the ocean. The galaxy of statesmen and poets who distinguished the early part of this century as not second to the age of Augustus, received him with distinction, entertained him with honor, and parted with him with the most confident predictions of his future world-wide fame. The halls of Congress received him in his upward progress; he occupied the gubernatorial chair; he represented his country's interests at the most powerful court in Europe; he presided over the well-being of his venerable Alma Mater; and, in each position, left the finished work of the complete man. The foreign relations of his country were, by the hand of God, left without a pilot, and with universal consent the eyes of the nation singled his as the only hand worthy so exalted a trust. He gathered up the floating threads of unfinished diplomacy, and threw a light so powerful upon the true policy of other nations, respecting the points at issue, that even his adversaries owned themselves instructed, and yielded to such an elucidation of the principles of national right. Finally, upon the review of a career so illustrious, of whom could it more truly be declared—

"Nil tetiget quod non ornavit."

To make our position in the sequel more clear, let us take another illustration.

She was a king's daughter, and the heiress presumptive to the throne of a realm upon whose flag the sun never sets. There

was a most melancholy interest attending even the circumstances of her birth, which bound her to the nation's heart with a power almost beyond that of earth. She was, to borrow the words of him who sung her sublimest monody, the "fond hope of many nations." She, and her already promised issue, were the beautiful barriers which stood between an idolizing nation and an odious alternative—succession. The hour of trial and tears incident to all the daughters of Eve, without distinction of rank, approaches, and a mighty empire is breathless, save in a common prayer for her safety. The ministers of state, and the foreign ambassadors, are, according to the usages of courts, in the antechamber; the highest supposed medical ability of the metropolis stands ready to throw the ægis of science over its priceless charge, while the gunner, with lighted match in hand, stands upon the tower battlements to herald from a hundred iron throats the news which will bear gladness to the remotest hamlet of the British empire.

Now all that distinguishes these two individuals from their fellow beings is of a cast essentially poetic. To the mere mortal attributes of each there are superadded other features. In the first instance, that of exalted talent; in the other, that of birth, beauty, and interest of position. Who can estimate the national value of such a man, still in the maturity of his powers? How many great principles find in him their truest exemplar and exponent! How many millions of eyes are directed to him? How many hopes for the future bound up in him. Yet, next to its Maker, the physician is the custodian of the casket in which so much that is valued is enshrined. Look for a moment at the slightest of pathological occurrences in relation to such a being which ignorance may suffer or science avert.

There is a membrane hardly thicker than the paper on which these sentences are written, on each of the sides of which fluids are secariously secreted.

Suppose that nature, acting under her immutable laws, should, instead of throwing a fluid of which she wishes to dispose upon that surface, where it becomes a harmless flux, commence its deposit on the reverse, where its presence becomes fatal from the quick suspension of vital functions. Yet medical skill can change

this error of function by remedies whose operation is almost mathematically direct and uniform. Is not this single pathological illustration, when put in opposition to the importance to society of individual subjects, among the beauties of the healing art which closely borders on the poetic?

We will revert again to her whom we left a moment since on the verge of giving a new heir to the throne of Britain. Why now are anxious faces thronging the ante-rooms and stair-cases of the palace? What say those pale lips which whisper the last intelligence from that darkened inner apartment? Why stand, hour after hour, those gunners on the distant tower, waiting for the signal-flag till the smoking match has burned to its linstock? Alas, that the resources of our profession might not have been ably applied during those hours big with such national importance! He who could have borne the peasant's wife through greater perils without a concern, is paralyzed when a jewel a thousand fold more precious than the Kohinoor is thus consigned to his keeping. A slight inattention to position at a critical moment—a lack of promptitude in detecting the warning waver of the pulse—the fatal syncope steals on, and, ere a shriek even can reach the ears of those without—

> "In the dust
> The fair-haired daughter of the Isles is laid!"

We have said that the superadded qualities of these individuals are closely allied to the poetic. Yet every gentleman of experience who hears me has had reposed in his hands the same kind of sacred trust, only differing from that we have instanced in investment of royalty.

The young hnsband, who commits to the family physician the idol of his soul in the hour of her first accouchment, feels the same emotions experienced by Prince Leqpold; and if they were full of intensity and pathos in the one instance, they are hardly less so in the other. Every head of a family in the sober rank of society, is, in his lesser sphere, the centre of the same cluster of hopes, expectations and fond reliances, as those which stir the heart of the nation toward its great statesman; and if they are sublime in the latter case, they are even so in the ormer.

The *age* of the medical profession, and the *progressive principle at the same time existent in it*, appeal strongly to the imagination.

There is no spot in Europe which the medical man approaches with more of the feelings of veneration than the time-honored university of Padua. At this place medicine, as an exalted science, has sustained a more ancient foothold than at any other in christendom. It was transplanted hither from the land of its original cultivator—the Saracen. Far back in the night of the thirteenth century, when England was reposing in the darkness of feudal semi-barbarity, the enlightened policy of Frederick Barbarossa had made Padua the acknowledged source of medical science throughout the known world. In the fifteenth century the ornaments of our profession were all here. The anatomical theatre, still one of the best in the world—and which should be more extensively copied—was constructed under the eye of Fabricius-ab-Aquapendeute. Vesalius, Fallopius, Spigelius and Sanctorious here perfected those anatomical discoveries which have forever connected their names with the nomenclature of our art; and a century after them it could still boast among its professors the brightest luminary of medicine—Morgagni.

It was on a beautiful day in early October that I visited these venerable halls of science. They are among the splendid architectural triumphs of the celebrated Palladio. Passing beneath an arch to the spacious cortile, the attention is immediately arrested by the fine specimens of mediæval architecture abounding on each of its quadrangular aspects. High above, on all sides, are suspended the shields or other armorial insignia of those of noble blood who did not disdain to cultivate medical science as one of the accomplishments of a cavalier of the fifteenth century. The surgical skill of Queen Eleanora, of Castile, whose life has now become so much interwoven with romance, induced many a lady of noble blood, who followed her crusading lord to Palestine, to tarry on her way at Padua, to add a knowledge of surgery and medicine to the means of her usefulness in the land of the Saracen. Suspended upon the walls of the museum-hall are the portraits of the venerable fathers of our profession, clad in the unique costume peculiar to their respective times—preserved not

only as true originals of their illustrious subjects, but as *chefs-d'œuvré* of Guido, Titian and Tintoretto.

When wandering thus through these venerable halls of ancient learning and science, I could not fail to appreciate the halo of distinction which gathered around the ancient cultivators of our art. The lapse of several centuries had spared this monument, whose splendor is a true index of the *status* of our profession at the period of its erection. The march of conquering and hostile bands has been turned aside in respect to its ancient dignity; and as it stood when the cultivation of medical science was a pursuit worthy a kingly brain, so stands it now. The dignity and importance of the profession of which I am a member, gathered new additions in surveying this, one of its time-honored temples. I was impressed with the consideration that on me devolved my small share in doing honor to that art in perpetuation of which these broad foundations were laid. I wear the same badge which enabled the good Ambrose Paré to stand uncovered before his royal master.

Let him who sickens at the spectacle which imposture, ignorance and charlatanism so frequently presents to him; who almost turns in disgust and despair from a profession which repays his devotion not only with ingratitude, but with a display of still worse passions, remember that in all the epochs of past history there have been names among our brotherhood, the very existence of which will impart a lasting vitality to the healing art. It cannot die out while the memory of John Hunter lives. The Roman senate-house has crumbled to the last stone of its basement, and the choked up fragments on the Palatine Hill are the only tokens that here stood the palace of the Cæsars; yet will the Roman name die while Virgil, Cicero and Tacitus are read? And how infinitely less perishable than a State is an Art like ours, whose age is only a transition to a rejuvenescence. How much of scorn should be heaped on him who, under the shallow pretext that our art has lost its strength with the *prestige* of youth, embraces some form of transcendental empiricism. There is little danger, save in the basest of minds, that such a lapse can befall one thoroughly imbued with the ancient literature of the pro-

fession, or who has caught its spirit among the seats where it was anciently cultivated.

The daily duties of the medical man have their poetic features. He is but half a physician who contents himself simply with being a prescriber of remedies for disease, let him do his function ever so understandingly. If he is not thoroughly impressed with the fact that his duties in the sick-room have a far wider range than this, he may blame himself alone if the empiric supplants him. If our art was always a demonstrable one, the case might be different; but it must be our destiny ever to have only uncertainties on which to rely. Yet the subject—the man—the sick man—accepts none of these uncertainties. He must either have positive assurance, (which of course cannot always be granted,) or else he must clothe his attendant with so many attributes of infallibility that his faith may find in him a sound anchorage. Where a disease is manifestly mortal, and the physician has been early in such prognosis, his duty is no more than to afford the few alleviations which are at his command; but how large is the opposite class of cases, where time, perseverance, and suitable versatility of treatment, are all necessary to bear the subject to the point of convalescence.

Now there are few subjects of disease of sufficiently even mind to bear long continued bodily suffering without its effects becoming apparent. Very soon the ability to reason clearly on any subject is found to be wanting; the enfeebled brain can only compass the most palpable conclusions, and the will yields its supremacy to the guidance of an erratic imagination. Now the successful physician will be the man, *ceteris paribus*, who most completely takes captive the imagination of his patient, and holds it fettered while the efforts of nature, or, if we prefer so to express it, the well directed therapeutics of the attendant is effecting a cure. It may be said that this view of the aims of the medical man is a false one, and its inculcation is calculated to undervalue solid professional attainments. This is not so; for the art of thus engrossing in one's self all the hopes, desires and wishes of the invalid, is not incompatible with scientific attainments of the highest order. It is apparent to the most obtuse apprehension that the former reverence paid to high medical education

has disappeared from the earth among a very large circle, and it will be found, among the bulk of our population, that in their choice of a medical attendant it is the *man per se ipsum*, and not so much his supposed or even acknowledged scientific attainments, which influences their choice. This will be demonstrated to any one who examines the common circumstance of two contiguous communities, the one having for its professional oracle the man scrupulously adherent to the teachings of the schools, while the other receives and adopts him whose principles are a hybrid, begotten from the crossing of a diploma never deserved with the last phase of German quackery. This state of things does not exist solely because this is "an evil and adulterous generation," and given to countenance forms of empiricism which are themselves of adulterous origin, but because those who are, according to our estimate, justly entitled to the respect and patronage of the public, stay their efforts precisely at the point where the empiric commences his, and that point of treatment actually the most inviting, and, in how many cases, the most important of all.

When this broad view of the duties of the medical man is taken, their performance becomes invested with an interest which he never knows who is simply a prescriber of nostrums. He becomes a mental philosopher, well discerning whether his patient is being led by the phantoms who assume delusive shape around his bed, and becoming fully possessed of resources sufficient to curb them. And he who takes this view will find details of the profession, too often held by others in detestation, divested of much of their odium, and becoming acceptable and even pleasing in their performance. Take, for instance, the daily routine of the punctual and thorough-going practitioner in a country district, and although there are many bald trails in the calling to which he is devoted, yet all who hear me will bear me witness that it has much of excitement, something of adventure, and, to those who study the human character in its most instructive, delightful, and at the same time, pathetic aspects, a good deal of the truest kind of poetry. He sees life stripped of all of its conventionalities; and if the salient points of the heart are accessable to any, they certainly are to him. Picture him setting forth on his well considered round, embracing perhaps a circuit

of many miles. Be the portents of the sky inauspicious, he girds himself manfully to meet the rage of the elements, well knowing that a stormy sky is an exception and not the rule in the records of his year's experience. Be the skies clear and bright, the faithful horse that bears him, and even the dog which wistfully begs to accompany him, feels equally inspirited with himself. Those who await his approach, well knowing that the appointed hour will find him true to his engagement, expect his coming with earnestness, and treasure with careful remembrance all that has been said on the point concerning which the most lively feelings are awakened. As he has no upbraidings to encounter for promises violated, and no self-reproaches to sting him for concealed transactions which would not bear the light, he meets every duty with the fearlessness of a Brutus, "armed strong in innocence." Such a man is a student of nature in her best aspects. The ruggedness of the mountain road, and the varied beauty of the river's bank, present landscapes which none should better enjoy than he.

In fact the most charming descriptions of natural scenery given us by the pen of genius have been drawn by the hand of the physician. No eye but that of Dr. Smollet could have so portrayed the beautiful valley leading from the Clyde to Loch Lomond, as to have made its description as imperishable as the English language. Every reader of the choicest British literature for the last twenty years, will acknowledge his deep obligation to Dr. D. M. Mott, an active practitioner of medicine in the obscure town of Mussleborough, whose articles, over the signature of "Delta," are a species of descriptive landscape painting, so admirable as to have acquired a fame as wide as the universe itself.

How fully must Dr. Beattie have felt the inspiriting influence which the professional man's opportunities only can afford, when he gives vent to the fullness of his admiration for the delight of nature—

"O, how canst thou renounce the boundless store
Of charms which Nature to her votary yields;
The warbling woodland, the resounding shore,
The pomp of groves, the garniture of fields;

All that the genial ray of morning gilds,
And all that echos with the voice of even;
All that the mountain's sheltering bosom shields,
And all the dread magnificence of Heaven;
Oh, how canst thou renounce and hope to be forgiven!

These charms shall work thy soul's eternal health,
And peace, and gentleness, and joy impart;
But these thou must renounce if lust of wealth
E're finds its way to thy corrupted heart."

Contrast, for a moment, the two great secular professions of the day—those of medicine and law,—and how quickly the balance preponderates in favor of the former. The most repulsive case which can engross the attention of the medical man is an elucidation of some vital principle around which has coruscated the genius of a Hunter, a Physick, a Cooper, or a Sydenham. Forgetful, entirely, of the adventitious disagreeables which lie on the surface of the case in hand, the true physician plunges at once into those depths of it where lies the most wonderful machinery which the hand of Deity ever set in motion. He no more regards what are stigmatized as the "opprobria" of his profession, than does the miner the inch of muddy deposit which covers the auriferous bed into which he is bound to sink the mining shaft.

Has the law anything of this? Nothing. Cleanly sheets of paper, and pens dipped in the porcelain standish may be the instrument; the courteous quiet of the barristers' chambers, or the fallacious dignity of the bar and the bench, may be the same; but all below these gilded surfaces is rank, corrupt, rotten! Features are revealed at every step below at which honor revolts and conscience shudders. How many, who might have achieved the highest forensic eminence, have abandoned their calling in disgust, in abhorrence at such pictures of the heart's depravity! What physician ever truly loved his profession, and pursued it to the end, without finding his heart softened toward his fellow man.

We had followed the physician in his daily progress among those who require his professional ministrations. His daily round is accomplished, and his course is now homeward. At a distance he espies the tokens that his day of toil, like his day of life, is to

be crowned by an evening of comfort. He feels more than all the poet has written, that

> "'Tis sweet to hear the watch-dog's honest bark
> Bay deep-mouthed welcome as we draw near home;
> 'Tis sweet to know there is an eye will mark
> Our coming, and look brighter when we come."

Ye who say he is not happy, understand not the true source of what all are seeking. Who denies that the calling of the medical man is honest, or that its duties merit its usual emoluments? His conscience disturbs him not, and his gains are spent with the satisfaction and profit which only bless the gold which lies in the palm of honesty, industry and virtue.

The age of the medical man has its poetical features.

In the great school of life he has graduated with the highest honors. Every furrow on his cheek is an honorable record that he has shrunk from none of its duties. The badge he bears—"*palmam qui meruit ferat*"—he bears with none to gainsay his claim. It is too frequently the case with the high profession of divinity, that the retired laborer, finding something of the salutary restraint which his sacred office had thrown around him during his life of service thrown off on the cessation of his clerical functions, relaxes the severe circumspection formerly exercised over himself, and thus suffers in the estimation of those who stayed not to think that the inconsistency of his life lay rather in the too severe draft on poor human nature in its earlier period than in any actual defection in its latter. Into this unfortunate and false position the true physician never falls. A life necessarily contemplative brings forth an age of true wisdom; and what is the true wisdom of the old man but a preparation for that last scene of all! The aged physician, whose life has passed in strict obedience to the high promptings of his calling, can better than most apply to himself the gratulation—

"When I went out to the gate through the city; when I prepared my seat in the street:

"The young men saw me and hid themselves; and the aged arose and stood up.

"The princes refrained talking and laid their hand on their mouth, and their tongue cleaved to the roof of their mouth.

"When the ear heard me then it blessed me, and when the eye saw me it gave witness to me."

The labor of a long life may have brought little of what is too frequently regarded as life's legitimate fruit; yet he finds himself unaccountably and trebly enriched in that satisfaction of spirit without which gold entereth into the heart with a more deadly than a serpent's tooth. His age is like the ante-chamber of Heaven, where he trustingly awaits entrance; and when the great usher, Death, shall summons him in, he goes—

> "Not like the quarry slave at night,
> Scourged to his dungeon, but sustained and soothed
> By an unfaltering trust, * * * *
> Like one who wraps the drapery of his couch
> About him and lies down to pleasant dreams."

A DISSERTATION,

Read before the New-Hampshire Medical Society, at its annual meeting, in Concord, June 7, 1854, *by* WILLIAM H. H. MASON, M. D.

Mr. President and Gentlemen:

The subject which I shall present to you to-day, is the necessity of a knowledge of the Chemical Changes that take place in the human body while in a state of disease.

There is a certain stereotyped process which a physician is expected to go through when called to the bedside of his patients, viz.: To examine the tongue and feel the pulse, together with a few inquiries as to pain, tenderness, &c., all of which is perhaps proper and necessary; at least, people have been taught to expect this, and without it we could not secure the confidence of our patients or their friends; and by it, we are foolishly expected to look into and through the system as perfectly as if it were transparent.

I will not condemn the ordinary manner of examining the

sick. It is always well to take into the account the force and frequency of the pulse; and even to apply the ear to the cardiac region, which gives a far better idea of the sthenic or asthenic state of the circulatory system; but it is not by either, or both combined, that we can with certainty decide between irritation and actual inflammation. Even if we call to our aid pain and tenderness, we are not sure that we have a case of actual lesion; beside, we have no rule as to force or frequency of the pulse by which we can be governed in diagnosis absolutely.

I will not risk the assertion that a knowledge of the chemical changes in disease is indispensable to a correct diagnosis, or treatment in every case, or the majority of cases. Some cases are plain, even to bystanders: When we see a person laboring with despnœa, cough, bloody sputa, and full, bounding pulse, we require no further evidence to pronounce it pneumonia. So, also, with diarrhœa and dysentery. I may say in truth, probably, that the pulse, tongue and general appearance of the patient, is a safe guide in the majority of cases; yet every well informed physician will acknowledge that cases do occur that the ordinary manner of examination will not discover: such as tubulous inflammation of the kidneys, and some species of dropsy. And to an inquiring physician it would be a source of pleasure, if not of profit, to know for a certainty, even in the plainest cases, the peculiar changes in all the emunctories of the body. Neither is it difficult, in ordinary cases, to discover the exciting cause of disease; but the remote cause may be a disturbance in the natural secretions, thereby giving excess or diminution in some of the elementary properties of the fluids.

The animal body is a perfect and wonderfully arranged laboratory,—and nature her own chemist,—where is manufactured various alkalines, acids, salts, oxyds, gases and heat; all of which are essential to life and health; and a disturbance of which produces disease, and, in return, is acted upon by local disease. Aliment furnishes material out of which is manufactured these different properties.

It is a familiar law in chemistry, that a combination of different properties produces a compound essentially different from either. Chime possesses properties different from the aliment from which

it is made; hence, we say digestion is almost purely a chemical action. This action may be assisted, and undoubtedly is, in some graniverous animals possessing gizzards, by some mechanical aid; but this does not do away the fact that digestion is a chemical action.

If the process of digestion is a chemical action, then it follows that a disturbance of that action will produce disease, and *vice versa*. The gastric fluid possesses properties exactly suited to the decomposition of food. Food, although of many kinds and differences, possesses similar ultimate principles, viz.: saccharine, oleaginous and albuminous; and the juice is made up of free ch. acid, muriate of soda, and some other alkalies. Now the very properties of the ingesta and juice would lead a chemist at once to conclude that a contact of the two would produce a powerful chemical action. The stomach also possesses the power, (I almost said intelligent power,) of secreting bile whenever it is necessary to call the aid of its alkali to neutralize any excess of acid, either by secretion or fermentation. The question whether bile can be secreted by any surface or organ save the liver, I do not design to discuss here.

During digestion, chemical action changes with every stage. The properties of the chime are different from those of the chyle, and so on; being none the less marked at the very moment the precious morsel assumes its vitality. During these processes, solids are changed to fluids, and fluids to solids; consequently, according to a well known law in chemistry, there must be a continual evolution and concealment of heat. When fluids are changed to solids, heat is evolved, and *vice versa*. I will not, however, go into any new or strange hypothesis by saying how far these changes are concerned in the production of animal heat; yet it is evident heat is produced during these chemical changes. I will make the inquiry, whether we cannot upon this principle account for the sudden increase of heat in certain inflamed swellings, to a temperature above that of the blood?—a fact which has come to the observation of every one accustomed to applying the hand to inflamed surfaces. A satisfactory explanation of this fact has never been given by authors, to my knowledge. It is asserted that heat does rise above that of the blood, and there the matter rests.

We may say that the heat in an inflamed part is accounted for by the presence of more blood than natural in the part. This is well while the heat is below or at that of the blood; but when it rises above it, then this explanation is at an end. If this heat comes from the same source of animal heat, then it must be accounted for by the same laws by which animal heat is governed; and its very character shows that it cannot arise from oxygenation of the blood. Put a thermometer in the lungs; another in the arteries, and another in one of these inflamed parts, and the latter will rise several degrees (six, sometimes,) higher than either of the others. I know of no way to explain this phenomenon, unless it is produced in the part itself by a rapid deposit of lymph, evolving the heat as the solid parts of the blood are deposited. Such inflammations rapidly destroy the vitality of the part diseased. When heat subsides by there being no further deposit, suppuration commences, which carries off the heat by a reversion of the law by which it was produced.

A physician may fall into serious error in the administration of remedies, by being ignorant of the peculiar chemical state of the system at the time. For example: he is called to a patient with inflammation of the stomach, or any other morbid state of that organ by which free ch. acid is formed. He administers a dose of calomel. After it enters the stomach, another part of ch. acid unites with the mercury, forming the bi. ch. hydr. (corrosive sublimate.) At his next visit he is surprised to find his patient in a state of great exhaustion,—burning heat in the throat, pain in the stomach, thirst and vomiting,—all of which he charges to gastritis, confirming his original diagnosis; at the same time wonders why his calomel, and perhaps opium, did disappoint him in not allaying the irritation in the onset.

> "While this truth he boasts; will boast it while he lives;
> No poisonous drug is mixed in what he gives."

But a judicious use of ice, leeches and mucilages restore the patient; and he feels an everlasting gratitude to his physician for curing such a powerful disease; not forgetting to recommend him to all his friends, especially such as have a disease of the stomach. Incompatibles should be studied in the

stomach as well as out of it. It is not enough to know that we do not give a poison, for the most harmless medicine may become such by a chemical change in the alimentary canal.

A man comes to me, having had for several months a general restlessness, shooting pain and heat in the region of the bladder, weight in the perinœum, and irritation about the rectum and anus; also, a disposition to frequent micturation, attended with straining and shooting pains along the uretha and glands penis, with tenderness above the os pubis on pressure. My diagnosis is, *chronic cystitis;* but is that sufficient? How do I know that ulceration has or has not taken place? Upon this depends almost entirely the treatment. I may guess, and probably guess right; but the imminent peril of my patient demands that I should know. My own reputation, and the obligation I owe to my patient, demand it. If pus is found in the urine, the case is pretty surely ulceration; if nothing but mucus and shreds, chronic inflammation. This may be done by examining the urine with a microscope. But this is not safe alone, for mucus and pus granules have so much resemblance that it is difficult to detect the difference; but if these granules fall to the bottom of the vessel, I have one proof that there is pus. If on pouring in liquid ammonia, and afterward adding nit. acid, there should be a whitish precipitate floating in the centre of the liquid, and no pus falling to the bottom, the evidence is that it is mucus. If albumen cannot be detected by heat or nit. acid alone, it is pretty sure evidence that there is no pus, for albumen is always present with pus. After having tried this test for albumen without detecting it, and having applied the ammonia and acet. acid—the latter throwing down a whitish precipitate—the evidence is doubly sure that the granules are mucus; while, on the other hand, a coagulum by heat or nit. acid, globules resembling pus or mucus falling to the bottom of the vessel, is equally as certain that pus is present. I might mention, in connection, that in Bright's disease of the kidneys it cannot be detected absolutely without the aid of test to the urine; although that test alone may not suffice, for albumen sometimes exists in the urine in other diseases; yet, with this and the train of symptoms that present themselves in that disease, it cannot be mistaken.

By making a diagnosis in this manner, the application of remedies is easy. Instead of administering to names, we have the object to be accomplished direct before us. The disease is discovered, and all we have to do is to use such means as will be most likely to dislodge it. This manner of investigating disease also does away with specifics which have, more than any other cause, rendered the profession of medicine mysterious and empirical; and it is the main thing that supports the thousand nostrums sold from our shops at the present day. The sooner the idea of specifics is discarded by the profession and the public, the better for both.

The attention of the profession for the last few years has been called to the use of citric acid in arthritic and rheumatic diseases. Now what is the *rationāle* of this treatment? Simply that the blood contains an excess of uric acid, which is acted upon by some alkali, forming an insoluble salt, which is deposited around the joints, tendons and fascia, giving rise to local inflammation.

I was once called to a man who had chronic articular rheumatism that had resisted for a long time the usual remedies: such as opium, colchicum, nit. pot., &c. I put him upon large doses of lemon juice, mur. tinct. ferri, and ordered him to be washed in vinegar and water, over the whole surface, every day; upon which he immediately began to improve, and in a few weeks was able to walk about and attend to his usual occupation. Vinegar poultices will sometimes act like magic in reducing the inflammations produced by the chalky deposit around joints. I think that upon a careful examination of rheumatic and arthritic diseases, we shall find the cause to be, not so much in colds and exposures, (only as excitants,) but in the peculiar changes in the system consequent upon bad assimilation. If it were not for being too hypothetical, I would venture the opinion that sciatica, and other painful nervous affections, arise from the same source.

It is presumed that every physician is acquainted with the philosophy of respiration, and the pure chemical changes and operations that are continually going on in the lungs, not only in health, but otherwise; but it is by no means every one who

makes a practical application of such knowledge. It is a duty we owe to the community in which we live, as almoners of the public good, and overseers of the public health, that we look after and advise, not only such as come under our own application of remedies, but all, wherever our advice may conduce to the perpetuity of health. We may not be called to this, or expect fees; but the ignorance of the mass upon these vital points should be a sufficient apology for our gratuitous interference in what, under other circumstances, would not concern us. There is no doubt that as far as dollars are concerned, this course would operate to our injury; but the position of the physician raises him far above any paltry remuneration in these matters. The arrangement of school-houses, and houses of public worship and assemblies, and even private dwellings; their position, space, ventilation and cleanliness, both in and about the buildings, should come under his immediate care. Every one should be particularly advised of every noxious property liable to float in the air, not only in, but around his dwelling.

We cannot help being moved with perfect admiration at the incomprehensible intelligence of nature in the arrangement, perfection and variety of this action in and upon the system. We see sentinels posted here and there, watching with more than faithful assiduity; never sleeping on duty; but ready to give timely warning of the approach of any enemy that would do violence to the body over which they are called to watch; and should such enemy approach, the whole battle forces of nature's organized legions are ready for action; and it is only as pioneers to these forces that the medical profession can be of any use. Every defect has its remedy. How beautifully the albumen of the blood is held in solution by the presence of soda—acting a double purpose by also neutralizing any acid which might coagulate the blood while coursing through its vessels. I can hardly conceive of any part of digestion or assimilation but is perfectly under the control of some chemical agent. I see no reason why this agent may not be concerned in the formation of the ultimate cells, the existence of which is so universally acknowledged at the present day. I have somewhere seen it stated that a perfect

resemblance to these cells may be obtained by mixing albumen with oil; whether true or not, I am unable to say. There is something in every secretion which distinguishes it from any preëxistence; which of itself proves that it is formed by a chemical action. Neither does this chemical action cease when life ceases; but is actually called into requisition in returning the body back to its first element. Decomposition cannot take place without it. By the cessation of the active principles of the body, the azote is necessarily driven from the oxygen and carbon, laying hold upon the hydrogen, giving rise to that peculiar ammoniacal effluvia so characteristic of decomposing animal bodies.

I think that every physician, so far as he is able, should become familiar with the proportions of every property of the fluids; especially those of the blood and urine, in a state of health as well as disease, and the method of testing them. It would require time, patience, and close application; but its importance justifies the effort; and I doubt whether one's medical education can be even tolerable, much less complete, without it. When once acquired, it would be an infallible guide to the source of all diseases, and an equally as sure index to a correct treatment. After having made a diagnosis in the usual manner, this would reduce it to a certainty, if the diagnosis was right; if not, it would expose its error. For example: blood contains, according to modern analysis, about 800 parts of water, 120 of blood corpuscules, 70 of albumen, 5 of saline matter, 3 of fibrin, with 1 or 2 parts of fatty matter to the 1000. Now in disease some of these proportions must be changed; and what these changes are can be known only by a proper analysis. Blood, also, sometimes contains pus, biliphine, or biliary matter, and even animalculæ; and how, after we have all overlooked these very things in our practice, we shall never know. The same remarks will apply to the urine. There is hardly a disease, however mild, but gives some characteristic change in the urine, either in a change of its normal properties, or by new deposition. There may be a change in the quantity of urea, which, in some diseases, amounts to 60 parts to the 1000, giving rise to the most alarming cerebral disturbance; yet its presence is necessary to constitute healthy urine.

But it is not my purpose to go into these different changes, but briefly to call your attention to them, and show its importance; and the few analytical points that I have used have been only for illustration. I shall say a few words more upon the changes of the blood, omitting entirely the other fluids of the body. Here is another stronghold of charlatanry: "*Impurities* of the blood." How many nasty and sickening nostrums have been forced into the stomach for the purpose of *purifying* the blood; and it is astonishing to see how general is this deception, even among men of science! People will swallow salts, sulphur, and other equally as repugnant drugs, to "physic the blood." Physic the blood! What a ridiculous idea! I suppose they think that these purifiers operate upon the blood, to cast out any offending matter, the same as cathartics act upon the bowels. If people were undeceived upon this one point, there would not be one half the quack medicines sold that now are. And is not the medical profession at fault for this? I think it is. I recollect, when a boy, of hearing a physician say to his patient: "Sir, your blood is as black and thick as tar." So, under the impression that bleeding would *thin*, as well as *bleach* the blood, he allowed a ligature to be applied to his arm, which was kept there a sufficient length of time to dam up a puddle of venous blood, when the vein was opened, and astonishing to relate! out came a stream exactly resembling tar, to the great satisfaction, and no small credit, of the doctor. And this man was a graduate in medicine, and to all intents and purposes, a regular practitioner.

The best purifier of the blood that I know of, is a good digester and proper food; and remedies can only serve to produce healthy blood so far as they remove disease from, and give tone to, the digestive organs. And this is a fact so reasonable, so simple, and so easily explained and understood, that there is no difficulty in undeceiving every community upon the *modus operandi* of remedies and the deception of quack medicines, if physicians will make the effort. But this cannot be done by ridicule or raillery; people have a defence against that; but by a fair exposition of facts.

There *are* changes, however, in the blood which are real, and which is necessary for the physician to regard. What these

changes are, I am not particularly prepared to say, farther than what has been already explained by physiologists; but I am fully convinced that a great field is here opened for farther research; that pathological chemistry will yet discover new and highly important changes in the blood, which will lead to new remedies and a more correct treatment in many diseases.

We do not suppose it will ever be convenient or proper to draw blood in every disease for the purpose of testing it; but by becoming acquainted with the physiological chemical changes in the blood in the various diseases, we may be far better able to prescribe suitable remedies. Many deficiencies of the blood, if well understood, might be made up, by a change in diet or medicine, so as to supply such deficiency; and more particularly, when certain principles are in excess, neutralizing and counteracting agents could be applied with more certainty of success. There would then be no experimenting with uncertainties, but every part of the science of medicine reduced to a mathematical certainty.

APPENDIX.

A.

Dr. NATHAN SANBORN is here alluded to, who has furnished the following graphic account of his wonderful escape from the Norwalk disaster, May 6th, 1853:

"My seat was in the first passenger car, perhaps the sixth or seventh from the front, and next the wall, on the right side. We had come from Forty-second street, in New-York, at the rate of forty-two miles in ninety minutes, and I was sensible of no diminution in the speed till admonished by a violent jerk forward: the effect, as I supposed, of the heavy engine passing from the end of the rail to empty space. This threw open the door before me, and disclosed the awful chasm into which we were plunging. Of the draw or signal I knew nothing, having never passed there before; but had seen the steamer coming up the river, and thought her speed would bring her to the track about the same time with our train; and it is surprising the engineer failed to receive the admonition. At any rate, I felt some misgivings, but quieted myself, as I usually do when another holds the reins, with—"They know what they are about," and so cast off all fear, which I had hardly time to do, when the jerk of the train, the rattling of glass, &c., told but too plainly the awful fact, that the draw was open for the passage of the boat. The river is divided in the middle by a solid stone abutment, with a passage for boats of sixty feet on each side, and the draw turns on a pivot attached to this pier, carrying the whole bridge with it, and opening a passage on both sides. The canal is said to be thirty feet deep, four of which are mud,—ten or eleven, at that time (high tide,) of water, and fifteen or sixteen from the water to the track. The engine struck the opposite abutment;

two baggage cars fell on it, and one rolled off. The first passenger car must have nearly reached the same point, as I found myself near the abutment when the crash was over. This car seemed to break about where I was, say two or three seats forward of my original one, and the forward end, with the passengers, to be thrown over my head and lodged on the top of the car behind me. I was supported a few moments, with my head above water, by the floating fragments about me, but soon found they were insufficient to sustain me. Being unable to swim, and finding nothing to rest my foot on, I looked above me for something to support me, and found to my purpose a part of the side of the car, standing, with the baggage rack attached, just within my reach. The first portion I took hold of was broken and came off, and I grasped it further on, and trying its strength, felt perfectly safe. But on attempting to get upon that part of the top of the car, which lay detached from the sides, a little below the surface of the water behind me, I found I was in danger of drowning. Two Irish women, who had been thrown from the front seat of the car and lay badly hurt, and half under water, on this frail support, called loudly for mercy; and knowing I could retain my hold, buoyed up by the water, for any length of time, I assured them of safety and a speedy rescue, and remained suspended till the gentleman who had occupied the other half of my seat came and took them to a boat which had reached us, and who then returned to me and greeted me with the apparent affection of a brother, though our acquaintance was but of ninety minutes' duration. He offered to take me to the boat; but I assured him I could take care of myself, and urged him to help those who needed it more. He did so. Then throwing myself on this floating fragment, I crept, (for I found on trial I could not walk, on account of a sprained ankle,) to the boat, and was taken to the shore, and with the aid of the arm of a young man, reached the nearest house, ten or twelve rods distant, without difficulty. I could think and talk calmly, on my part, of the awful tragedy; but when I came to the dead, arranged in rows, in the garb of life and health, who but a moment before were with me anticipating a joyous meeting with home and fond waiting friends; when I recognized the countenances of those who had occupied seats about me, most of them in the vigor of manhood, now pale in death; especially, when I learned that my friend Dr. BARTLETT, of Stratham, was with the dead, whose acquaintance I had enjoyed for twenty years, but of whose presence I was not aware till found a corpse; while I, a feeble old man, worn

down with the infirmities of many years, was snatched by an unseen hand from among the dead, and placed with the living,—my heart sickens, my eyes fill, and my voice fails!

"P. S. I asked, and very promptly received, through the hand of my friend, Dr. N. B. IVES, of New-Haven, $1500 from the New-York and New-Haven Railroad Company. My frail constitution received a shock from which it will never recover."

B.

Dr. JOSIAH BARTLETT, son of the late Hon. EZRA BALTLETT, of Haverhill, N. H., and grandson of JOSIAH BARTLETT, one of the signers of the Declaration of Independence, was born May 3, 1803, at Warren, N. H.

His father removed to Haverhill in 1812, that his children might receive the benefit of a classical school.

Having received a thorough academic education, he pursued the study of medicine with his uncle, Dr. JOHN FRENCH, of Bath, N. H., and with his father, at Haverhill.

Obtaining his medical diploma at Dartmouth College, in 1824, he entered into partnership with his uncle, the late Hon. JOSIAH BARTLETT, of Stratham, N. H., whose reputation and extensive practice he shared and eventually received.

He was devoted to his profession, the general practice of which made such demand upon his time as to preclude him from any pursuit not connected with it. His reading was mostly confined to medical literature and the news of the day, much of which was performed in his carriage.

He filled various offices in the N. H. Medical Society, and upon taking the Presidential chair, delivered an address, the subject of which was, The History of Medicine. A memoir of his uncle, JOSIAH BARTLETT, prepared and read by him, was published by the Society.

He was elected a delegate to the last Convention for revising the Pharmacopœia U. S. A., and repeatedly a delegate to the American Medical Association. By the Rhode Island Medical Society he was elected an honorary member.

and courts have been ready to excuse those who have erred with good intentions.

The danger of the educated physician does not lie here.

A physician is liable, also, to a civil action, for not exercising sufficient skill and care in the performance of his duty to his patients.

This is a principle fraught with danger to all medical men, and one requiring their profound consideration,—not that they are subjected to a greater responsibility than that imposed upon other professions and occupations, nor that they are more likely to be heedless in the performance of their duties, but because of the peculiar means which the patient has above all other litigants, of misrepresenting his case, and of moving the sympathies of the jurors who pass upon it.

The rules which regulate this liability are deduced from the general principle of the law, that where any person undertakes for a reward to perform a work for another, which requires skill for its accomplishment, he holds himself out as possessing the requisite knowledge and skill, and engages that he will exert and apply that skill in the performance of the work which he undertakes. And if he does not possess the skill which is requisite, and the employer, by reason of the want of it, suffers an injury; or, if possessing it, he does not use it, either from wilfulness or negligence, and damage is thereby sustained by the employer, the party who undertakes the performance of the service is liable to a suit for the recovery of the damages sustained by his incapacity, wilfulness or negligence. Thus the blacksmith who undertakes to shoe a horse, and ignorantly or negligently lames him, and the mechanic who, undertaking to repair a piece of machinery, fails from incapacity or carelessness to perform what he agrees to do, becomes answerable for the injury occasioned by his breach of duty. And so the attorney at law who, from want of a competent knowledge of his profession, or from neglect in applying his professional skill to the case committed to him, is liable at the suit of the client for the damage thereby sustained.

In like manner, and upon the same principle, a person who holds himself out as a physician, and assumes the care of a patient, undertakes for the necessary skill to treat the disease in a proper manner, and to prescribe the medicines suited to counteract and cure, if perchance it may be cured, or to alleviate the pain of it, so far as that may reasonably be done, and if he fail in the performance of the duty thus devolved upon him by his employment, whether the failure be the result of ignorance of his profession, or want of due care in his prescriptions, if injury to the system of the patient, delay in the

cure, or unnecessary pain can be shown to have resulted from his want of skill or care, the patient may have an action to recover his damages. The rule applies in full force in surgical practice, and the great danger of the medical man lies here: Actions are rare except in cases of surgery; and in cases of that character the plaintiff generally comes into court with some visible deformity, which, however it may have been occasioned, whether by his negligence, restlessness or wilfulness, excites sympathy, and being attributed to the mismanagement of the defendant, he is in great danger, even when he has been in no fault.

Several cases of this character have fallen under my own observation.

The inquiry naturally arises—How may the medical man best avoid the danger of loss—loss of money, and perhaps, to some extent, loss of reputation, through such prosecutions.

It has been suggested that, before acting in any case, he should require a bond or writing, exonerating him from all responsibility, or, perhaps, containing a direct stipulation not to prosecute a case of failure to effect a cure. Possibly such a document may have a tendency to restrain the party who has executed it from instituting a suit. But it admits of very grave doubt whether it could have any legal operation to exempt the physician from any responsibility.

Theoretically, he is liable only for want of skill or negligence. Practically, he is in danger from an unreasonable claim, and from the sympathy of the jury. The document, to be of any avail as a legal bar to a right of action, would be in effect a contract that the physician should not be liable even if he lacked skill, or was guilty of negligence. But it has been held that it is against the policy of the law to permit a party to contract for exemption from the legal consequences of his own fraud; and gross negligence has been held equivalent to fraud.

Whether the principle would be extended farther, and held to embrace such a contract with a physician, remains to be seen.

Such a precaution may do no harm, but from the nature of the case, it must be impracticable, in some instances, to procure such writing from the patient himself.

Another precaution, in cases where danger of a suit may be apprehended, is to secure sufficient evidence of the state and progress of the case from time to time, by an examination by other physicians, and by intelligent men not of the profession, and therefore not liable to a suspicion that their testimony is influenced by an *esprit de corps*.

Another, when the patient is refractory or unreasonable, is to decline farther attendance, assigning the reason and giving reasonable time to procure another medical attendant. But whenever this course is resorted to there should be plenary evidence respecting the state in which the case was left.

Other measures will suggest themselves as adapted more or less to each case as it arises. Perhaps none of them can give a perfect assurance of exemption from unreasonable prosecutions.

But something may yet be hoped from an intelligent public opinion, which shall rebuke this sponging of the profession to indemnify the patient, in many instances, for the consequences of his own folly or negligence.

THE

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-FIFTH ANNIVERSARY,)

Held at Concord, June 5 and 6, 1855.

CONCORD:
STEAM PRINTING WORKS OF McFARLAND & JENKS,
PHENIX BLOCK, MAIN STREET.
1855.

PROCEEDINGS.

THE Society met at the Court House, June 5th, 1855, at 10 o'clock, A. M., the President, Dr. JOHN S. FERNALD, in the Chair. The proceedings of the Council were read by the Secretary. The following gentlemen, being recommended by the Council, were unanimously elected Fellows:

Alvah Moulton, M. D., Ossipee.
George A. Priest, M. D., Hillsborough.
Thomas Sanborn, M. D., Newport.
Daniel F. Frye, M. D., Francestown.
Luke Miller, M. D., Fitzwilliam.
Samuel P. French, M. D., Richmond.
Charles Palmer, M. D., Strafford.
Charles Bell, M. D., Concord.
Henry Rockwood, M. D., New-Boston.
True M. Gould, M. D., Raymond.
Thomas J. W. Pray, M. D., Dover.
David B. French, M. D., Bath.
Sylvanus Bunton, M. D., Manchester.

George C. Shattuck, M. D., of Boston, was elected honorary member.

The doings of the Council in the case of Dr. William Prescott, charged with a violation of the Code of Ethics, chap. 2, art. 1, secs. 3 and 4, were communicated by the Secretary, together with the correspondence had with Dr. Prescott, whereupon the following resolution was unanimously adopted:

Resolved, That we hereby declare Dr. William Prescott expelled from this Society.

The President announced the following Committees:

On Treasurer's Accounts—Drs. Nahum Wight, L. M. Knight, R. P. J. Tenney.

On Nominations—Drs. J. B. Abbott, L. G. Hill, Wm. H. H. Mason, J. P. Whittemore, John Clough.

At 12 o'clock the President, Dr. John S. Fernald, read an interesting and instructive address. Its subject was, "Medical Science, its Progress and Impediments."

Dr. Mason, from the Committee on Scarlatina, made a report, which was accepted, and referred to the Committee on Publication.

Dr. Dixi Crosby, from the Committee on Hernia, made a report, which was accepted, and referred to the Committee on Publication.

Dr. Mussey, of Cincinnati, being present, made some interesting and instructive remarks on the subject of Hernia.

On motion the Society adjourned to meet at 3 o'clock, P. M.

AFTERNOON SESSION, 3 o'clock.

The Committee on Nominations, through the Chairman, Dr. James B. Abbott, reported a list of members as officers for the ensuing year. The report was adopted, and the gentlemen nominated unanimously elected.

Dr. Webster, from the Committee on Publication, made a report, which was accepted, and referred to the Committee on the Treasurer's Accounts.

Dr. Twitchell, of Keene, presented the following resolution, which was adopted:

Resolved, That a Committee of three be appointed, who shall report at the next annual meeting of this Society upon the subject of Quackery, and how far it is consistent for members of the medical profession to countenance empirics by meeting them in consultation.

The President appointed Drs. A. Smith, G. B. Twitchell and N. Wight, said Committee.

At 4 o'clock Dr. A. H. Robinson read an interesting and instructive dissertation. Its subject was, "Medicine progressive, as shown in the History of the Science," which was referred to the Committee on Publication.

Dr. Webster offered the following resolution, which was adopted:

Resolved, That the Committee upon the communication from the Manchester Pathological Society, presented last year, be continued, and requested to report at the next annual meeting.

The Committee consists of Drs. J. Crosby, F. P. Fitch and L. M. Knight.

Dr. William P. Stone read a dissertation on Fracture, which was referred to the Committee on Publication.

Dr. Sargent presented the report of the delegates to attend the medical examination of Dartmouth College, which was accepted, and referred to the Committee on Publication.

Dr. Abbott, from the Committee on Nominations, submitted the following list of Chairmen of Special Committees, with the subjects to them committed:

On Surgery—Dr. E. R. Peaslee.

On Practical Medicine—Dr. Wm. H. H. Mason.

On Indigenous Botany and Materia Medica—Dr. Albert Smith.

On Obstetrics—Dr. Dixi Crosby.

On Epidemics—Dr. J. S. Fernald.

Committee on Publication—Drs. E. K. Webster, J. B. Abbott, Ezra Carter.

Committee of Arrangements—Drs. E. K. Webster, C. P. Gage, Ezra Carter.

The foregoing report was unanimously adopted.

Adjourned to meet at 9 o'clock, A. M., to-morrow.

MORNING SESSION, Wednesday, June 6th.

Dr. Smith, of Peterborough, submitted the following preambles and resolutions, which were adopted, and referred to Dr. Peaslee:

Whereas, at the last meeting of the American Medical Association Dr. Peaslee was appointed a Committee to report on the Medical Topography and Epidemics of this State, and

Whereas, by a subsequent vote, it was decided that all such reports must be presented to, and sanctioned by, the State

Societies respectively, before they are submitted to the American Medical Association, therefore—

Resolved, That one member of this Society, from each district into which the State shall be divided for the purpose above mentioned, be appointed, to collect the statistics in regard to their respective districts, and to report to this Society at the next annual meeting.

Resolved, That Dr. Peaslee be empowered to appoint the persons just alluded to, as soon as he can mature the plan of the report, make the necessary divisions of the State, and other arrangements.

Dr. Peabody, of Epsom, announced the death of Dr. Charles T. Berry, of Pittsfield, and Drs. Peabody, Carter and Fernald, were appointed a committee to prepare resolutions.

Dr. Peaslee, of Hanover, presented a communication from Dr. G. W. Garland, of Lawrence, Mass., on "The Medical Properties of the Yellow Jasmine," of Virginia, which was referred to the Committee on Publication.

Dr. Peabody, from the committee on the death of Dr. C. T. Berry, reported the following resolutions, which were unanimously adopted:

Resolved, That in the death of Dr. Charles T. Berry, late of Pittsfield, the N. H. Medical Society has lost one of its most worthy members.

Resolved, That we extend to his afflicted family our sincere and heartfelt sympathy in their great and irreparable loss.

Resolved, That the Secretary be instructed to enter the above resolutions upon the records, and transmit a copy to Mrs. Berry.

Reports from the Centre District N. H. Medical Society and the Grafton District, transmitting an abstract of their doings for the past year, were received and read by the Secretary.

Adjourned.

MEDICAL SCIENCE;

ITS PROGRESS AND IMPEDIMENTS:

THE ANNUAL ADDRESS *before the N. H. Medical Society, June 5, 1855, by the President,* JOHN S. FERNALD, M. D.

ASSOCIATIONS for the promotion of special objects commend themselves to our approbation and support, as a more efficient means of effecting those objects, than distinct individual influence. It is essential to the advancement of a science, that its friends, with a unity of purpose, should exercise a unity of influence, in accordance with the old and trite axiom, "Union is strength." It is essential to the honor and respectability of the medical profession, that a unity of action should prevail. Opposition to error, as well as the dissemination of truth, is the duty of every member of the profession. Individual influence will do much, but when combined with the influence of others it will do more; it will give a status and tone to the profession, which its opponents can neither gainsay nor resist.

Our profession has its secret as well as its open foes. There are those who, by malicious insinuations and secret inuendos, would endeavor thus covertly to injure, who would not dare to make an open attack; but often under the cover of credentials, as a bulwark, they will labor to overthrow the edifice which they profess to support. To all the opponents of rational medicine we would oppose a phalanx impregnable, whose devotion to the interest of science and the profession would be a guarantee of their efficiency and zeal.

It is our duty as members of the medical profession to protect its honor as well as to promote its efficiency, by the adoption of

all proper means which will tend to increase its usefulness and elevate its character as a humane and benevolent institution. We revere the memories of those men who have passed away, by whose labors and industry the seed was sown. To guard the fruits of their labors, is a duty enjoined upon us by every motive which could actuate us, as men devoted to the interest of scientific medicine.

Associations, if there were no other object to promote than the cultivation of the social feelings, would be eminently desirable. Who has not felt himself refreshed and invigorated, by a few days' social intercourse with his medical brethren in our annual *reünions;* returning to his usual routine of business with renewed spirit and vigor; realizing that he is not alone, but that he has friends who sympathize with him in his trials and perplexities. He feels that he is not an isolated being, but one of a large company, whose aims and aspirations are similar to his own. He feels that in acquiring fame and honor as an individual, it reflects the same on his profession, which he loves. He is conscious, too, that every individual member rejoices with him.

This Society has arrived at its sixty-fifth anniversary. Its projectors and first members have all, *all* departed. To Bracket, and Cutter, and Pierpont, and Dow, and Crosby, and Wilson, and Howe, and Twitchell, and their associates, we owe a debt of gratitude for their indefatigable exertions in establishing, and labors and privations in securing on a firm foundation this Society, in which we feel so deep an interest. Three score years since, it was no easy task for the members of this Society to assemble in this city. To travel from the seaboard, from the valleys and mountains of the interior, on horseback, involved great pecuniary sacrifice as well as physical labor, yet they submitted to it. Through their toil and privations we have this Society, as honorable in its objects as it is venerable for its age. They left it as a legacy to us. Shall we not cherish it, and endeavor to make it still more useful and efficient, fulfilling the object of its founders?

This Society, like other human institutions, has had its mutations. It did bear the signs of decrepitude and age. Decay

appeared to be distinctly marked on its visage. Its vitality was declining. Marasmus was slowly yet surely insinuating itself, and sapping the foundation of its organic life. But we have the high satisfaction of congratulating each other on the favorable symptoms now manifested. By a judicious administration of alteratives, with the application of stimulants, the grand climacteric is passed; its system has become re-juvenated. It is now manifesting the elasticity and vigor of youth, and it will, by a continuance of a proper course of medication, fulfill all just expectation, and be an honor to the profession and the State.

From the multiplicity of subjects which might profitably engage our attention at this time, I have selected the subject of *Medical Science, its Progress and Impediments.*

I do not propose to go into the History of Medicine, to trace its progress, from its inception through its various fortunes, to the present day; but only to note some of the most prominent facts in its history, and suggest some of the causes which have prevented apparently the more rapid progress of medical science.

Medicine is a natural science. It arose from the necessities of man's physical nature. The pains of disease and impending dissolution would excite the sympathy of his fellow-man; and instinct, if no higher faculty, would prompt him to the use of such simple means as would be naturally suggested by circumstances. Where all were equally interested, the knowledge of the efficacy of certain remedies would not be forgotten. It would be preserved by tradition. What was found to be so essential to physical comfort and the enjoyment of life, and its preservation even, soon became connected with the heathenish rites of the mystical religion of the Greeks, with which it soon became incorporated, and their spiritual and medical advisers became identified. This event, no doubt, was the cause of the glaring absurdities and superstitious follies which distinguished ancient medicine.

Charms, amulets and incantations, were prominent means among the early practitioners of the healing art. In fact, these means have been transmitted, with some modification, down to our own age. It appears that in process of time the practice of medicine was confined to certain families, and they were the depositories of the traditional knowledge then existing. Hippo-

crates was one of the members of a family so highly distinguished—himself the eighteenth in descent from Æsculapius. The history of this latter personage is so involved in myth and fable, that it is not possible to determine what is true and what is fabulous. Hippocrates was a man of a profound mind and extensive erudition; learned in all the knowledge of the Greeks; and, moreover, a descendant in a direct line of medical men. He was the depository of all the ancient traditions. He arranged them, adding the result of his own experience and reflection, and gave the mass the form of a system. This was the advent of Rational Medicine. To Hippocrates we are indebted for Systematic Medicine. His aphorisms, many of which are acknowledged truths in the science, prove the acuteness of his perception and the correctness of his observation of the different phases of disease.

Galen, another luminary, who arose five hundred years after the "Father of Medicine," published the works of Hippocrates with commentaries. This work was the standard and the basis of medicine for fourteen hundred years. In the writings of Galen may be observed the germs of some of the most important discoveries which have been made in modern times; for instance, the discovery of the circulation of the blood. So near did he approach it, that it is difficult to conceive how he avoided it; but he did avoid it, and to Harvey, fourteen centuries afterward, is awarded the distinguished honor.

Medicine shared the fate of other sciences during the Middle Ages. For five hundred years no progress was made either in science or art. All intellectual effort was confined to theological disquisitions or metaphysical subtleties, excluding all rational investigation into physical phenomena. Galen, in his writings, indicates that he was acquainted with the different tissues, and suggested the doctrine of the unity of disease, which Bichat, sixteen centuries afterwards, demonstrated so satisfactorily. It is very possible that Bichat in entering upon the investigation of this subject only followed the suggestions of his own mind, but still we cannot divest ourselves of the supposition that he received the intimations which he followed from the old Grecian.

The Aristotlean peripatetic philosophy and the medical theo-

ries of Galen coëxisted for seventeen centuries, and were the doctrines in their respective departments exclusively. Philosophy is superior and anterior to science. No science can have a permanent basis which is not founded upon the deductions of a correct philosophy. The principles of a science must be educed by a correct method from facts. If the method be erroneous, the conclusions will be so likewise; consequently, all science not based on principles so elicited, is deficient in one essential element of progress.

The ancient philosophies had their legitimate effect on the formation and progress of the sciences. The Aristotlean and Platonic philosophies, from the senses and particular objects, arrived at the greatest generalities. Instead of collating numerous facts, and gradually approaching the ultimate, they would, from an apparently important fact, leap to a general conclusion. The consequences of this method we observe in the ancient theories in astronomy, and of other physical sciences. Medical theories being formed by the same method, must be obnoxious to the same charge of absurdity. These errors were not the fault of the individual who proclaimed them, but of the age and the prevailing philosophy. "We protest," says Bacon, "against any great value being set upon that, which has not been discovered or proved by the true form of investigation. Human knowledge and power are the same, and failure in action chiefly arises from ignorance of causes."

The ancient philosophies were calculated rather to improve and to refine than to enlarge. "The difference between the Peripatetic and the Inductive Philosophies may be expressed," says Bacon, "to be, the former the anticipation of mind; the latter the interpretation of nature." There are three species of false philosophy, viz., the sophistic, the empiric, and the superstitious. Aristotle affords the most eminent instance of the first. He corrupted natural philosophy by logic. "He appeared more anxious," observes Bacon, "as to definitions in teaching and the accuracy of wording of propositions than in the internal truth of things. He drags experiment along as a captive, constrained to accommodate himself to his decisions." The empirical school produces dogmas of a more deformed and monstrous

kind, not being formed in the light of common notions, but in the confined observation of a few experiments. We have an instance of this in the alchemist. The superstitious is more corrupting and injurious to true philosophy, and of wider extent. The disputation of the Sophistic school entraps the understanding, whilst the bombastic, fanciful and positive notions of the Superstitious flatters it. Platonism is more dangerous, because more refined than the Pythagorean. This evil is found in other systems of philosophy, where abstracted forms are introduced as final and first causes, omitting the intermediate. Phrenology is a modern instance of hasty generalization. The peripatetic philosophy existed for many centuries without change. The writers on philosophy labored to prove and enforce the dogmas of the existing philosophy, without questioning their truth. The doctrines of Galen existed for nearly the same period of time under the same circumstances, and ultimately met with the same fate.

The paths of philosophy and medicine have always been parallel. Correct principles of science and a false philosophy cannot coëxist, for truth cannot be the fruit of error. A false philosophy and an empirical medicine are allied, as cause and effect. The influence which the peripatetic philosophy had on science, is exemplified in the fact that no progress was made in the arts or sciences during the period of the ascendancy of this philosophy.

The commencement of the seventeenth century opened a new era in the history of philosophy and medicine. The discovery of inductive philosophy by Bacon was followed immediately by the discovery of the circulation of the blood by Harvey. It detracts nothing from the fame of these eminent men, that approaches had been made to these discoveries centuries previously; for those were but the glimmering of the dawn before the rising of the sun in full splendor. Reasoning by induction had been employed, but Bacon analyzed and explained the process. Whether the discovery of the circulation of the blood was the result of the employment of the mode of investigation by the inductive philosophy, we cannot positively determine; but the long period which had elapsed since Galen approached the fact, during

which time, under the Aristotlean philosophy, no progress had been made. As soon, however, as the inductive philosophy shed its light upon the paths of literature, this discovery was made. It is strong presumptive evidence that it was its fruit. These discoveries are unequaled in importance by any ever made by the genius of man. The one teaches the method of arriving at truth by a true and certain mode of investigation. The other, discovering the course of the vital fluid upon which is founded physiological science, opening avenues to the investigation of pathology, and exploding the many absurd theories which had been held by the medical world for ages. The basis of all medical knowledge is physiology. Without the knowledge of the laws which govern the human machine, it is impossible to be a correct pathologist. Pathology and physiology are intimately connected; they are, in fact, inseparable; they must be studied together. All pathological deductions which are not founded upon physiology are erroneous. I would not be understood to imply, that no truth in pathology can be discovered without going through with the formal process of induction, but when a supposed pathological truth will not stand the test of this process, it cannot be received with the smallest degree of confidence.

The progress made in physiology within the last half century has been rapid and uninterrupted. Pathology, in consequence of their intimate relations, has correspondingly improved. The effect has been that very many diseases, which had hitherto been opprobria, have been entered upon the list of those under the control of proper medication. The promulgation of medical theories having only a hypothetical basis, has done vast injury to medical science. However ingenious these theories may be, if they be found to be deficient in the great essential principle, truth, they injure, by diverting the mind from the pursuit of this principle in the right manner and proper direction. These speculative theories have always been the bane of medical science. The evils they produce are not confined to the age in which they are promulgated.

"The evils that men do, live after them." Many of the popular medical errors of the day, if not all of them, have had their

birth within the ranks of the profession. They were hypothetical theories, which had exploded and were rejected, and their deaths duly recorded, but their ghosts have continued to annoy the members of the profession, and will not, like the ghost of Banquo, "down at their bidding."

Mobility is one of the great constituents of the human mind. Progress is the constituent principle properly directed. Progression is forward, and not mere mobility, for there may be movement without progress. It is a *sine qua non* that a right direction be given to the mind; and he who succeeds in giving the right direction to mind, does more than he who makes the most splendid discoveries, inasmuch as the mass of mind he directs, has in it the elements which, when duly exercised, will yield as its fruits the knowledge which is the aim of all instruction. To acquire truth is much easier than to unlearn error. All truth is in perfect accordance with the constitution of the mind. It carries with it a satisfaction, which error can never do. We may embrace error, being deceived by its plausibility, but we embrace it as truth. But it does not satisfy, being destitute of that element which accords with the innate principle of the mind. Error not only dissipates our time, but it does more —it contaminates the mind. It is dangerous, for after being accustomed to contemplate error as truth, the mind loses that natural consciousness which is a safeguard to prevent our imbibition of error.

All science is the embodiment of physical truths, as Scripture is of moral. To attempt to found a system of natural philosophy on Scripture would be folly; dangerous to both. A heretical religion and a fantastical philosophy would spring from a mixture of matter, human and divine. Between physical and moral truths there can be no discrepancies; if there be apparent disagreements, we must inevitably conclude that there is error either in interpreting the revelation, or in forming conclusions from physical phenomena. For these laws emanate from the same omniscient and immutable Being, for all his works are in perfect harmony. It is only in the imperfection of our exegetical knowledge that there are any apparent discrepancies relative to these subjects. The interpretation of Nature is the office and

the legitimate employment of our intellectual powers. The more advancement we make in the discoveries of the laws which govern the physical world, the more plainly we shall perceive the excellencies of the Divine character, and the more elevated will be our mental exercises, and more constrained to love, wonder and adore.

The advent of medical science was under the peripatetic philosophy. That great errors should have ariesn and been perpetuated under these auspices, is not surprising. Many errors have been refuted through the influence of a correct philosophy. The tares are still rife among the wheat, and may not soon be eradicated, but we have the satisfaction to know and believe that they will become proportionally less each revolving year. Progress in any science cannot be healthful and true, unless it is made in accordance with the principles of a correct philosophy —that of induction. This process will lead only to the truth, or laws on which science must be based to stand the test of time and experiment. "The only course and method is," says Bacon, "not to deduce effects from effects nor experiments from experiments (as all empirics), but to deduce causes and axioms from effects and experiments, and new effects from these causes and axioms." These forms are the leading modes of investigation of the inductive philosophy, and apparently the only method by which principles can be educed from facts. Facts, in the aggregate, are the only basis upon which induction can act. But an isolated fact is valueless as to the induction of a principle. "Facts," says a modern philosopher, "are not truths; they are not conclusions; they are not even premises, but in the nature and parts of premises. The truth depends on, and is only arrived at, by a legitimate deduction from all the facts that are really essential."

Medical progress depends on the method which obtains in the examination of medical facts, and deducing from them correct theories. Striking analogies and ingenious hypotheses do not lead to the adoption of sound principles and the advancement of medical science, but are a fruitful source of erroneous doctrines. A systematic consideration of the phenomena of disease, and eliciting the truth by a rigid induction from these facts, gives an

impetus to the science, and firmness to its principles, which neither the indiscretion of its friends nor the malice of its foes can ever seriously impair. Medicine is a department of natural philosophy from which, if it be separated, it is rank empiricism. To avoid the evils which grow out of a vicious method of theorizing, is to lay the foundation of a correct method at the commencement of medical education. The progress of medical science depends much on the early training of medical men. The student should be well versed in the fundamental principles of philosophy and logic. An acquaintance with the ancient languages, and mathematics to a certain extent, are indispensable to the easy acquirement of the knowledge sought. The evils of defective medical education are neither few nor small. One of the evils, without enumerating others, is, that from some of our medical schools graduates are annually sent forth to the ranks of the profession, whose claim to their diplomas rests almost solely on their having paid the usual fees. From their number the army of quacks and empirics is recruited. The remedy for this evil is with the Schools; they only can apply it.

The subject of medical education is now eliciting much attention. To remedy the evils of defective education, or to prevent the evils from accruing, a suggestion has been made, to extend the Curriculum, and multiply or extend the courses of Lectures. That the Curriculum is sufficiently brief, will, I presume, be admitted, but extending the time would be a doubtful means of effecting the desired object. The proposers of the extension of the course of lectures appear, from the suggestion, to be of the opinion that from lectures, students must receive the most important part of their education. From this opinion we beg leave respectfully to dissent. The lectures which students are required to attend are a highly useful and relatively important means of acquiring knowledge, but they are not the *most* important. The branches of science pertaining to the science of medicine, which are demonstrable, as Anatomy, Chemistry and Operative Surgery, are taught with more facility and accuracy by demonstration than by description. The faculty of sight is brought into requisition to assist the memory, by deepening the impression; consequently, to give permanence to the knowledge

acquired. But relative to subjects not demonstrable, to which no external faculty can give any assistance, vocal teaching stands on different grounds. The teacher can only point out the way to knowledge and the direction in which it lies. He has been prospecting, to use a familiar term, himself. He has sought and found the Placers. He has collected specimens. He exhibits them to his pupils, and defines accurately the localities in which he procured the valuable material, and the manner of acquiring them. He describes the labor and privations, the toils and the anxieties which he experienced, his hopes and his fears, and his final success. The result of his exertions he exhibits; but they are his, and not his pupils; they are not theirs, nor can they ever be *theirs;* they belong exclusively to their possessor. By an effort of memory they may call to mind their history, their character, and their value. But it is, nevertheless, not their knowledge. To acquire the knowledge, they must *dig* for themselves, and it is the only method by which it can be acquired. Their facilities are much increased for acquiring by the directions received, by the specimens exhibited, enabling them to detect the true metal—to separate it from the baser material with which it is surrounded. This is the pupil's own work; he must do it himself. He will be much assisted by judicious advice, but the labor he *must* perform; he must acquire it himself, or he can never have it. Study is the *sine qua non;* no substitute will avail.

We would not detract one iota from the true value of lectures, as a means of medical education, for they are, to a certain extent, indispensable, but we would protest against their being considered as the principal means of medical education, when they should be considered as subsidiary only.

The multiplicity of our medical schools is not favorable to the progress of medical science, nor the increase or advancement of medical knowledge. The rivalship which is excited, and the ambition to graduate the largest class, is not favorable to strict scrutiny into the qualifications of the candidates admitted to the honors of graduation.

A course of private instruction under competent teachers, combined with a private course of lectures on the subjects of

study, accompanied with daily, rigid examination, commends itself to our approbation, as giving great facility to acquiring a knowledge of the science of medicine, and not liable to the objections to the usual course. It indoctrinates the pupil into the principles of the science; it compels him to advance through the different stages of the science, until the whole area has been surveyed, not cursorily but thoroughly. A more extensive course of lectures will subsequently be of great service. With the previous training he has been experiencing, he will make improvement which he could not otherwise do, to the same extent. Previously to a student graduating in the arts, he is subject to daily examination and recitation in the different branches of his course of study, for years in succession. To omit these essential means of improvement in preparing for the exercise of the duties of a most responsible profession, is an error of no small magnitude, and should meet the decided disapprobation of the medical profession.

Medical science takes the precedence of all physical sciences, from its immediate influence on the physical happiness of man. All other physical sciences have an indirect or collateral influence on humanity; all contributing, however, to one great end—the elevation of man, as an intellectual and moral being,—all tending to the solution of that most important problem, human existence. The progress of science depends exclusively on the talent, industry, and energy exercised by those devoted to its interests. A cold and formal acknowledgment of its importance, an apathetic assent to its truths, will do nothing to advance or improve it. A rigid examination of its truths, a close and faithful investigation of its principles only, will tend to purify and extend it, securing it on a basis firm and immutable.

Medical science is rapidly progressing, notwithstanding the numerous impediments which retard its course. It is destined to a high state of excellence, all present appearances indicate.

Perfectibility is not an element in the humanities; the *ne plus ultra* is therefore a point unattainable by man. But in the progress which is being made in the knowledge of the laws of Hygiene and Pathology, we may hope with confidence that the time will arrive ere long when the fears of the "pestilence which

walketh in darkness" *will* be dissipated, human life prolonged, and much of human misery consequent to those fatal epidemics now so prevalent, be averted, and the truths of medical science be triumphantly vindicated.

MEDICINE PROGESSIVE;

AS SHOWN IN THE HISTORY OF THE SCIENCE.

A DISSERTATION, *read before the New-Hampshire Medical Society, at its annual meeting, in Concord, June* 5, 1855, *by* A. H. ROBINSON, M. D.

THE false and the real in science, as in religion, are often so commingled as with difficulty to be distinguished; so that the mere pretender and the true man, in the eyes of the world, stand upon the same equal ground. And even when the dress in which he has arrayed himself, is stripped from the back of the impostor, and he stands revealed in his true character, the reproach and obloquy which are justly his meed, are too often cast upon that class, to which, like the barnacle to the ship's bottom, he has attached himself only to impede its progress, and which is made responsible for all the mad pranks which he plays before high Heaven. No profession has suffered more, or has had more true cause of complaint for this injustice, than our own. Men may toil and labor, as men have toiled and labored, for the advancement of medical science and for the good of humanity; nay, they may make the most brilliant discoveries and those of lasting benefit to man, and the profession at large may practically act upon such discoveries in the treatment of disease; and all this is remembered by the world, if remembered at all, only

to be forgotten. But let some bold and arrogant man arise, no matter how ignorant, provided he is bold and arrogant; and let him revive some old and long-exploded practice—even let him engage in all the astrological nonsense of the dark ages, or, however unskilfully, in the strange rites of the Egyptian Magi, and the multitude will flock to him to do him honor, while the learned will tauntingly tell us that ours is no science, or, at most, one that makes no progress. And this in face of the fact, that men of commanding intellect, inspired with the noblest enthusiasm and actuated by the purest motives, have in all ages devoted the energies of their minds to the elucidation of medical truth, and to the advancement of medical science; evincing in their efforts a zeal that never flagged—an industry that never tired—a determination that turned back from no obstacles—and in face, too, of results which have poured their blessings upon the world, in the form of sufferings alleviated—of diseases removed—of lives prolonged—and of happiness secured. When men called great, outside of the medical profession, advance such ideas as we have alluded to, it is not strange that the masses, who seldom stop to analyze ideas, should catch them up, and practically act upon them as truths; for the sayings of great men, because they are the sayings of great men, are received and cherished as sacred things, and often, too, when the only claim to consideration which they possess, apart from the character of their authors, lies in the boldness of sentiment advanced, or in the peculiar language in which such sentiment is expressed.

That men of intelligence look upon ours as a profession without science, or a science without progress, need not be disputed, when even Lord Bacon—"the greatest * * * * meanest of mankind"—has boldly declared, that "Medicine is a science, which hath been more professed than labored, and yet more labored than advanced—the labor having been rather in a circle than in progression;" which is as much as if he had said, "Medicine is a stationary science," for a mind as profound even as Lord Bacon's would fail, we think, in the effort to show that labor expended in a circle could produce any onward progress.

Sad indeed would it be, if all this were true, for the man of ardent mind, who enters our profession with the fond hope of

doing something for the advancement of true science, and finds that, convict-like, he is doomed to a treadmill sort of existence, where there is an unceasing round of labor, and yet no change, but where the sun's decline ever finds him in the position assumed at the morning's dawn. Ixion-like he seeks communion with a goddess, and embraces a shadow, and, like him, is for his folly, forever chained to a wheel of infernal fire. But we, Mr. President, do not acknowledge the justness of the reproaches that are cast upon our profession. On the contrary, we believe that medical science has kept pace with the spirit of the times; and, considering the inherent difficulties in the way, has made great and good progress—as great and as good as could be justly demanded. A brief recurrence to the history of medicine will, we think, sustain us in this position.

Without dwelling upon the speculations which have been indulged in relation to the rise of our science, we may safely assert that the science of medicine must have had a very early origin—one dating long prior to any historical records. For as men found themselves suffering from the diseases or accidents incident to the body, they would naturally seek for modes of relief; which modes would indeed at first have been extremely rude and often ill-directed, and such as may have been suggested by the effects of certain kinds of food upon the body, or the operation of certain external agents, or by analogy from the spontaneous actions of the system; or, again, by the mere *accidental discovery* of the medicinal virtues of certain substances. Thus in course of time they would form a *materia medica*, which would be handed down from generation to generation, increasing in bulk as it increased in age. Looking for no higher origin of our profession, reason tells us such a course as we have alluded to would have been pursued; and the history of every newly-discovered country goes to prove this, so far as analogy can do it. The aborigines of our own land have their medicinal herbs, which alleviate, though they cannot tell why, their sufferings; and the same is true of the Africans and of the inhabitants of the Pacific and Eastern islands. Again, as men are fond of power, and as the possession of a secret by which one could remove the ills of his fellow-men, would give him power over

them, the happy discoverer of a medicine would not only keep his knowledge a secret, but would be likely to magnify its importance, and perhaps claim direct communication with the Deity, as the author of his wisdom. Such an individual in a rude and barbarous age would be looked up to as little less than the Deity himself. And we find that the "medicine man," in savage nations, is very generally regarded with peculiar awe, and is considered as enrobed with uncommon sanctity, while he himself is not slow in striving to enhance this feeling of veneration, by all those arts and mummeries which have such an effect upon the minds of the superstitious children of nature.

We are to look to Egypt, the mother of science, as the first country in which medicine was practised with any degree of success. Sa'nt, the secretary of Osiris, had, according to Diodorus, divine honors paid him, as the inventor of letters and of all useful arts. His doctrines were collected after his death, and were found to consist, for the most part, of medical precepts. These precepts the physicians or priests were bound to follow, and if by so doing they lost their patient, they were held blameless; but if they deviated from them in the least, and the patient lived, they were punished with death. The priests among the Egyptians, as among all the early nations, were the depositaries of all the learning of the times—of medicine among the rest. The chief priests, it is supposed, practised the higher branches of the profession, which consisted in magic rites and soothsayings; and that they were expert in one branch, at least, of their calling, we may learn from the Old Testament, where they are represented as vieing with Aaron himself in doing wonders before Pharaoh. The Egyptians must have possessed no inconsiderable knowledge of drugs to have enabled them to embalm bodies, which remain to this day in a good state of preservation; while, from this same practice of embalming, they would gain some general knowledge of the structure of the human body, and the situation and relation of the principal internal organs. But that they were expert anatomists we have no just reason to infer; and so far from their being good surgeons, we are told by Diodorus that they could not reduce a common laxation of the foot, which befel Darius when hunting. Indeed, medicine, at

this period, appears to have consisted in a knowledge of detached facts relative to the operation of certain agents upon the system, without that well-ordered arrangement of such facts as would entitle it to the name of a science, while its practice, instead of being in the hands of those who followed it as a distinct and special calling, was confined to men who engaged in its pursuit as incident to matters which they conceived of much greater moment.

The Grecians, although they cultivated the arts and sciences with so much success, in the first instance gained their knowledge from the neighboring nations. For a long period all who were desirous of gaining a greater share of knowledge than was to be obtained at home, went to Egypt as the great store-house of science and learning; and from hence, most probably, they first gained their knowledge of the healing art; but down to about the time of the Trojan war, no mention is made of actual personages who practised medicine in Greece. Chiron, the centaur, is the first native Greek who is singled out as having introduced the art of medicine to his countrymen. He was, it is said, a prince of Thessaly, who instructed the heroes engaged in the siege of Troy, in medicine and surgery, and who received the infant Æsculapius when found exposed, and taught him the art and mystery of medicine. To Æsculapius is ascribed the honor of being the first who devoted himself to the cultivation of medicine as a distinct object of pursuit. That Æsculapius possessed skill above his contemporaries may be inferred from the fact, that his death was said to have been caused by the jealousy of Pluto, because he rescued so many individuals from the grave—"that dark, Plutonian shore." His profession was followed by his sons, who accompanied the Greeks to Troy, and are mentioned by Homer as distinguished for their skill, while to their descendants, who received the name of Æsclepiades, was almost solely confined the practice of medicine for eight or nine centuries. The Æsclepiades were the priests of the temple of Æsculapius, and directed the rites and ceremonies there; and as these temples became the resort of invalids from all quarters, who gathered there to be cured of the diseases with which they were afflicted; and who on recovering placed votive tablets in

the care of the priests, on which were inscribed a narrative of their case, of the symptoms of their disease, and of the means adopted for its removal, a sort of medical schools gradually arose, which could not be without their influence upon the welfare of the profession. Although for centuries the oath-bound Æsclepiades made no great advances in medical science, so far as is apparent to the student of history, yet in their temples, we think, may be discovered the germ of that great progression, which was mainly effected by Hippocrates.

And here, as we approach the termination of this period in medical history, we may be permitted to remark, that although most of the events which transpired during the time at which we have glanced, are necessarily involved in obscurity, bound up as they are with the mythological fables of the past, and colored by the superstitious fancies of those who recorded them, yet enough is known to show that even here our profession had made "great and good progress." Starting from the smallest beginning, confined to those who only incidentally attended to the healing art as a means for increasing their power and influence, it had grown into a regular profession. From detached facts in medicine, noticed by men scattered here and there through the world, and gradually collected and accumulating in the temples, had grown up the schools of Cos and Gnidos, where the youths of Greece, from perusing the votive tablets, and from the experience of the priests, sought to qualify themselves for usefulness in the world. Knowledge, it is true, was yet limited and confined, yet it was to some extent systematized. Mysticism and jugglery to a great extent prevailed, yet light gleamed through the clouds, and it needed but a man of clear head and sagacious mind, joined to untiring industry, to avail himself of this light, and out of the chaos around him to construct a system, which should challenge the admiration of the world; and "the man for the times" was not wanting!

The world is attracted by the noise and glitter and pomp of those who, by these means and appliances, gain renown, while the man of modest though sterling worth is neglected and unnoticed. An Alexander, with his armed hosts at his back, may stalk abroad, crushing out the lives and liberties of nations and

peoples, and be called great; while a Hippocrates, in all the attributes of the truly great man immeasurably his superior, may work silently and well, through the period of a protracted life, to build up a system, which shall be of lasting benefit to mankind, and be forgotten. The one is a destroying angel, and is honored as a demi-god; the other a preserving power upon earth, and is passed by as of no account. Such is the justice of mankind!

Few men, of any age or profession, have ever lived, more truly great, or to whom the world is more largely indebted, than he whose advent, four hundred and sixty years before the Christian era, was destined to produce so great a revolution in the practice of medicine, and to exert so great an influence in all after time. Lineally descended from Æsculapius and Apollo, counting among his ancestry on his father's side princes and chiefs celebrated in Grecian song, and illustrious practitioners of medicine, under whose guidance the Coan school acquired high eminence, while through his mother he could boast of direct descent from Hercules himself. Hippocrates, instead of sitting idly down, content with the fame attached to his family, devoted himself zealously to the cultivation of the healing art, rather stimulated than otherwise to renewed exertion by the renown which was already his by right of birth. Without blindly following the practice of his times, he availed himself of every opportunity to add to his stock of knowledge, traveling far and viewing disease in every form; attending as a student the schools of professional teachers, ever watchful and judging carefully for himself; discarding all dogmas not founded in truth, he adopted only those principles which seemed based on nature and reason. He found the science encumbered with the rubbish of ages—that too much and yet not enough had been done for medicine; and he set about preparing materials from the waste around him out of which to rear a fabric well ordered and sure. A true philosopher, he first sought out his facts, and then rationally founded his theory upon them; and well would it have been if this course in scientific pursuits, instead of the reverse, had always been followed. "He appears," says Bostock, "to have had the sagacity to discover the great and fundamental truth,

that in medicine, probably even more than in any other science, the basis of all our knowledge is the accurate observation of actual phenomena, and that the correct generalization of these phenomena should be the sole foundation of all our reasoning." Although Hippocrates was not without his speculations and hypotheses, yet these were ever kept in subjection to the results of observation, and made to yield when they appeared in opposition to the latter. When we reflect upon the difficulties in his path—upon the entangling nature of false philosophy, then so prevalent—upon the practical ignorance of anatomy and physiology, and upon the confined state of the materia medica—and consider how much he accomplished from the means at hand, we shall be forced to the belief that no one individual has done so much for the science of medicine as this noble son of the island of Cos.

From the time of Hippocrates we may date a new departure in the history of medicine. Men now began to cultivate the science in a more rational and systematic manner. The world began more fully to appreciate the importance of a subject which so greatly interested them. The learned made medicine their study, while the philosophers taught it in their schools. The light spread, and a century after the time of Hippocrates the Alexandrian school was established, which, for hundreds of years, through a succession of learned men, contributed to the advancement of science. It was here that the human subject was first dissected by Erasistratus and Herophilus, who ascertained, with more correctness than it had previously been done, the structure of the heart and great vessels, as well as that of the brain and nerves.

In Rome the arts and sciences were scarcely tolerated until the empire had extended beyond the limits of Italy, and for hundreds of years nothing was heard of medicine. It was not until about a century before the Christian era, that any man of note appeared there as a practitioner in our science, when Æsclepiades arose—the prototype of all quacks—who began his career as physician by denouncing his predecessors, and asserting that he had discovered a more successful mode of treating disease than had ever been known to the world. With little

science or skill, yet possessed of shrewdness and address, coupled with a deep knowledge of human nature or human weakness, he refrained from the use of active remedies, and trusted to exercise, diet, bathing, and other measures of this nature. He allowed his patients a liberal use of wine, and attended with the greatest assiduity to every thing that promoted their personal comfort, while at the same time flattering their prejudices and indulging their inclinations. It need scarcely be added that he acquired great eminence at Rome. He was followed by Themison, the founder of the Methodics, whose theory contemplates the solids as the seat and cause of disease, in opposition to that of Hippocrates, who traces the same to the fluids, thus giving rise to the humoral pathology. But without stopping to notice the many eminent men of our profession, who flourished at Rome from the time of Themison to that of Galen, we may remark, that although much error prevailed—although speculations of a wild and abstruse character were rife, and men seemed more desirous of maintaining the theories of the sects to which they were attached, than of advancing the true science of medicine; yet the truth did make progress, and at this time the cause and treatment of disease were better understood than they had ever been before. If medical men had not entirely escaped from the follies of the past, yet they were in the main travelling in the true path. The precepts of Hippocrates were chiefly their guide —and these, so far as founded upon truth, could not be followed without benefit to mankind. Physicians were becoming more practical in their views, and were to some extent throwing off the trammels of a false philosophy, which had for so long a time held men bound and fettered by its metaphysical subtleties, and were carefully watching the operations of nature, and studying the phenomena of disease, for indications of treatment. It was at this time that the first work on surgery and surgical operations was written, by Celsus, and says an able writer, "His descriptions of diseases and their treatment prove that the art had attained to a very considerable degree of perfection."

About the middle of the second century of the Christian era Galen appeared—"one of those extraordinary characters who are destined to form an era in science,"—as much perhaps from

the influence which their genius enables them to acquire over the minds of men, as from any actual improvements which they really make. Born at Pergamus, in Asia Minor, educated with care at schools which were then in the highest estimation, residing for several years at Alexandria, which was still at its height of renown, traveling much for the purpose of holding converse with the most eminent physicians, examining for himself the different systems of philosophy, but without attaching himself to any; devoting himself at a very early age to the study and practice of medicine, he commenced his career with a mind at once well stored and yet capacious, with an ardor in the pursuit of knowledge which never cooled, and an industry which never flagged or seemed to grow weary. With the advantages which he possessed from nature and education, he soon acquired an influence which could laugh at all opposition, and which grew and deepened until he obtained a sway over public opinion in all matters connected with medicine, such as no other man, since his time, has ever held. And, indeed, the influence which he acquired seemed, to a certain extent, well merited. He strove to bring men from their wanderings into the true path of experience and observation. He professed to act upon the principles of Hippocrates, and to do little more than expound his doctrines; yet in pathology he is said to have surpassed any of the ancients, and in his treatises on physiology he rendered the greatest service to science, surely going beyond Hippocrates in his knowledge, and approaching almost, if not quite, within hailing distance, in one particular at least, the great discoveries of modern times.

From the time of Galen until the middle of the sixteenth century, but little of a practical character, which can interest us, was achieved by the physicians of Europe. Galen's authority was so firmly established that succeeding writers, for more than twelve hundred years, did little more than comment upon his writings. And so enslaved were men's minds by this wonderful genius, that even after Mondini and others had repeatedly practised dissection—after Vesalius had attempted to show that Galen's anatomy was imperfect—hosts of the advocates of the latter, disregarding the evidences of their senses, undertook to prove that his knowledge of the human body was complete.

Soon after Galen's death we observe signs of the decline of Roman power, the fall of which was succeeded by what are emphatically called "*the dark ages*," in which science, literature and the arts, were all sunk in the dark and turbid waves of superstition and barbarism; and when for centuries the only lights that struggled through the gloom, were the sickly rays that gleamed out from the cells of the monks. The practice of our profession was confined almost exclusively to the priesthood; and, with the office of priest and physician again united, as it was in Egypt and Greece of old, it may not seem strange to us that the result was the degradation of the latter and the increase in power of the former. Where pretended relics took the place of judicious treatment, and where a priest's mummeries were considered of more avail than the physician's deepest research and most experienced skill, there was but little chance for scientific attainment or great medical progress. But light at length was dawning. The Arabian school, which, for more than four hundred years vigorously flourished, while the rest of the world was sunk in worse than decay, sent forth men of devoted zeal and acute observation, who, to say the least, kept the science up to the point it had attained at the time of Galen. It is to the Arabians we are indebted for the introduction of many substances to the materia medica, which are still in use; and with them was the origin of chemistry as a science, which, although, of course, failing in its primary object—the transmutation of the baser metals into gold—was by them made subservient to the uses of medicine. It is to them, too, that we are indebted for the first description of several diseases, as the small-pox and measles. Indeed, from the eighth to the twelfth century the only remains of a taste for literature and science were to be found among the Moors and Arabs. The intervention of the Crusades, by bringing the Europeans into communion with the Asiatics, made known to the former the philosophical and medical works of the Greeks; and so profoundly ignorant were the inhabitants of Europe of the Greek language during the Dark Ages, that were it not for the light gathered from the source of which we speak, it may well be doubted whether the writings of the ancient physicians would not have been lost to the world.

Again, the example set by the school of Salerno, which flourished from the time of the Crusades to the middle of the fourteenth century, was followed by most of the universities in Europe in which medicine began to be taught as a science, and human anatomy to be pursued as a study. In 1315 Mondini de Luzzi, to use the language of an old writer, "astonished the whole world by the public dissection of two female bodies." To these events it may be added, that the crumbling of the feudal system, by which men were emancipated from the thraldom of ages—the capture of Constantinople by Mohammed II., about the middle of the fifteenth century, in consequence of which the learned men there were obliged to flee into Europe for refuge, bringing with them their classical manuscripts, and inciting a desire for improvement in the minds of men—the invention of the art of printing—the great Reformation under Luther—one and all contributed to produce that general upheaving of the minds of learned men, and that thirst for knowledge and improvement, which characterized the revival of literature. Medicine, with the other sciences, felt the onward and upward impulse. The practice of writing monographs of particular diseases sprang up—an increased taste for the writings of Hippocrates arose—the study of chemistry was pursued with zeal—the greatest and most beneficial advance in our science was making by aid of the anatomists—and the way was preparing for that great and glorious progress which has been going on ever since. It is true, the minds of medical men did not at once burst the shackles that enthralled them. Although they observed and experimented more, yet they had been too long held in bondage to escape at one bound. They had as yet failed to learn that theory is not demonstration, and that hypothesis in science is but little else than an exponent of ignorance. Hence down to the eighteenth century the medical world was divided into sects, which received their characteristic distinction from the prevailing and fashionable objects of pursuit among learned men. Thus we hear of the mathematical, the chemical, and the anatomical sects, among physicians—the first of whom endeavored to explain the phenomena of the living system upon mechanical principles—and the second held as a leading doctrine, that the operations of the

body are all guided by chemical actions; while the last mentioned devoted themselves to anatomical researches, and indeed made most rapid strides in knowledge. Their investigations extended to every part and structure of the body, which were each made the subject of particular and minute examination. These labors were rewarded by the most brilliant success—as the splendid discovery of the circulation of the blood by the immortal Harvey—the absorbent system, by Aselli and others—and the explanation of the structure and office of the lungs and their relation to the heart, by Malpighi, Hooke, and their associates, fully demonstrate.

From the revival of literature down to the eighteenth century we behold attached to the medical profession a long array of men of brilliant minds, whose names would adorn the annals of any age or pursuit, but whose labors were too much, perhaps, devoted to collecting opinions and reasoning upon them, rather than to showing how they could apply them to the explanation of the phenomena of disease. A vast amount, indeed, of information was gradually acquired, and the practical writings of Sydenham, and the pathological and physiological works of Hoffman, with the labors of other distinguished men, led at last to the establishment of the same spirit of induction in the investigation of medical subjects, as was applied to other departments of science. Without speaking at length of the great additions made to medical knowledge during the eighteenth century, and down to our own days, the benefits of which we are now reaping in the form of a more rational and enlightened practice, I will only mention Haller, whose Elements of Physiology, with their establishment of the doctrines of *irritability* and *sensibility*, laid the foundation of a new era in medical science. And Cullen, who, notwithstanding the defects in his system, which later discoveries have made manifest, by applying the inductive principles of philosophy to the investigation of the phenomena of disease, and rejecting all hypotheses and theories not immediately derived from facts, did so much towards placing medicine upon the true basis of sound philosophy. I might go on and speak of the efforts of others in the cause of medical progress; of men, who, like Andral, Broussais, Dupuytren and Laennec in France;

of Blumerbach, Müler and Meckel, in Germany; and of the Hunters, Bell, Bright, Marshall Hall and others, in England—have labored and are now laboring so successfully in those researches, which, conducted in a right spirit, are of sure and lasting benefit to science. But I forbear.

I have thus, in a summary and very imperfect manner, and, I fear, with no little tediousness, touched upon some of the prominent points in medical history. And if we contrast the present state of our profession, with its minute knowledge of anatomy—its proved and advanced physiology—its improved and simplified, and simplified because improved, materia medica—its rational and philosophical investigation of the phenomena of disease, with all the light poured upon the science from collateral sources—if we contrast this, I say, with the rude, uncertain and hap-hazard practice of primitive times, when the half-clad priest, with many grimaces and strange juggleries, administered to his suffering and superstitious patient his vile decoctions, made by the side of the deep-shaded spring from his wisp of medicinal herbs, which were gathered, with strange incantations, and far greater efficacy, at the hour of deep midnight by the sickly light of the waning moon; or with the more enlightened but still ignorant practice of the polished and subtle Greek; or of the less polished and less subtle, but more practical Roman, with his comparative ignorance of anatomy, pathology and physiology, and his total unacquaintance with chemistry as a science, and with his theories and hypotheses, born of a false and enticing philosophy, and tincturing and biasing, to a greater or less extent, all his acts; or, still farther, if we contrast the present position of the profession with its condition at the revival of literature, when all the world was running mad after the philosopher's stone and the elixir of life—when chemistry had been only sufficiently learned to lead astray—when scholastic disquisitions and abstract theory usurped the place of sound philosophy and rational investigation—when those pursuits, which lie at the foundation of our science, were followed, indeed, but in that fitful manner and with that indefinite object which fail to lead to any great practical result—we shall be compelled to acknowledge that "medicine has indeed made great and good progress."

Again, if science be what it has been defined—"Knowledge systematized"—if patient investigation and carefully conducted experiment by able and competent men, through a long series of years—if the observation of phenomena and the collection of facts for ages, their generalization and reduction to those laws to which true experience shows they justly belong, and the recognition of those laws by men of all times and in all places—go to establish a science, then we may justly claim ours as a science—not, indeed, as yet always exact and certain, but as it would seem, by applying the principles of induction to all branches which are the subject of investigation, we are traveling in the true path to reach that point, and approaching nearer and nearer the coveted goal. "We have passed over the age of mere learning, and have now entered upon that of observation and experiment. Abstract theory is rapidly falling into disrepute, and hypotheses are no longer considered as deserving of attention, unless they profess to be derived from the generalization of facts. The necessary result of this state of things is to detach the mind from the arbitrary influence of theory, to diminish the authority of great names, and to induce the inquirers after truth to rest more upon their own exertions than upon the authority of others. We have, indeed, still to lament the errors and perversions of the human mind; to witness the attempts of ignorance and arrogance to usurp the place which is due to modest desert and patient research; but such attempts, for the most part, obtain only temporary success, and, after an ephemeral celebrity, are consigned to their merited contempt. In the mean time, notwithstanding these occasional interruptions, the progress of knowledge is steadily and rapidly advancing. Experiments, well contrived and patiently conducted, are performed in every department of physiological and medical science; observations are made with more minuteness and recorded with more accuracy;*" and it is not without reasonable hope that we look forward to the time when, in the language of Professor Alison, "The general principles or laws of vitality are ultimately to be made out, which will bear the same relation to the science of medicine, as the principles of gravitation, of the inertia of matter,

* Bostock.

of motion communicated by impulse, &c., bear to mechanical philosophy; or as the laws of heat, of electricity, and of chemical affinity, to chemistry."

If it be asked how this sentiment, to which we have alluded, has arisen in regard to our profession, we would submit, that it is not from any particular fault of the profession itself—from its want of self-respect—from its failing to demand from the public its just dues—or from neglecting to enlighten the world in regard to its claims to respect and honor. These may and undoubtedly do have their influence, but the main cause, as we apprehend, lies in the fact, that those engaged in other pursuits fail to discriminate between medicine as a science and the theories and abstractions of its advocates—and between the great progression, which is and has been steadily making, and the impostures and follies of those pretenders, who in all ages and in all countries have been confounded with the true men of science. Every age has had its theories, and its sects founded upon them, yet in every age our science has advanced. Hippocrates and Galen had their speculations and hypotheses—their four elements and their powers (*dunamies*,)—yet who doubts the influence exerted by these illustrious men in favor of medical progress? Aretæus had his *pneuma*—Van Helmont his *archeus*—Stahl his *anima*, and others their favorite theories, which they enforced with all the powers of their gifted minds; yet while these theories have arisen and fallen, to be again and again resuscitated under some new name, and again to pass into oblivion; and while the world looks on at the continual change, and imagines that it is medicine itself, and not these matters incident to it that is engaged in this unceasing whirl, our science still lives and continues to advance. Again, every age has had its imposters, our own among the rest, who have attached themselves to our profession—men, who commence their career of notoriety by loudly proclaiming themselves as the reformers of mankind, and who complain of the folly of their predecessors and contemporaries, assuming that the world never learned wisdom until they appeared, to enlighten it; and the world too often confounds these with the regular practitioners of our art. Confound men of science with such as these! Why, from the great Roman charlatan, who proclaimed himself "the conqueror of physicians,"

down to the self-styled "eclectics" of to-day, of whom any one of the old eclectic school, if now living, would blush to own the paternity—from the most adroit to the most simple of them all, there is not one, so far as true science is concerned, any more entitled to the honor and privileges of belonging to our profession, than the parasite upon the back of the eagle that soars to the sun, is of claiming affinity to the king of birds. The science of medicine has advanced to what it is, and is still to advance, not by the aid of such as these, but in spite of their exertions. Of its aims and duties they have no just conception. A motley set—among whom are undoubtedly some simple but well meaning men, and many shrewd but not so well meaning—to whom the language once used in regard to persons of quite a different profession might with propriety be applied: "They are all good and wise men, but, unfortunately, the wise are not good, and the good are not wise." Claiming to be physicians, they bear among them the serpent of Hygeia, but possess more of its subtlety than its wisdom. That the world should judge of our profession from these men, as they have exhibited themselves at all times, we may justly complain.

Errata—Page 22, fourteenth line from top, for *Sa'nt* read *Ta'ant*.
Page 25, nineteenth line from the top, the sentence should not close with the word *himself*. In reading, the *period* should be only a *comma*.

FRACTURE;

A DISSERTATION, *read before the New-Hampshire Medical Society, at its Annual Meeting, in Concord, June* 5, 1855, *by* WILLIAM P. STONE, M. D.

MR. PRESIDENT AND FELLOWS:

I HAVE selected for my theme the subject of Fracture, as one of universal interest, not because I have any thing new to present, or any new theory or practice to offer, but because the principle of the saying, "Line upon line, precept upon precept,

with here a little and there a little," is as applicable to our profession, as to those to whom it was addressed.

Mr. Abernethy was in the habit of boasting that "he knew how to make a poultice, and could tell the big wigs how." Permit me, gentlemen, to express the hope that you will not consider my remarks out of place, or without interest, if they should be as homely as those of the celebrated Englishman.

Much has been written on this subject, and yet, if an inexperienced man should read the whole, and rise from its perusal to examine and treat a case of fracture, he might meet much embarrassment. The varieties of fracture are endless, and complicated with every peculiarity of constitution, but the principles which guide us in their treatment may truly be said to be few and simple.

Fracture has been defined as the separation of a bone by violence into two or more parts. The symptoms which accompany such separation vary according to the office of the fractured bone. When bones form a part of an apparatus for the performance of a particular function, as in locomotion, and are the levers on which the muscles act, their solution of continuity suspends or greatly impedes this function; while the fracture of bones containing important organs, as the cranium, spine, and bones of the thorax, may produce destructive injury of those organs, or they may be fractured without endangering in the smallest degree the contained parts, or preventing the performance of their usual functions.

Immediate death may and frequently does follow the fracture of a bone, as in severe fracture of the cranium, causing laceration of the brain or effusion from torn blood-vessels; or when the odontoid process is fractured, causing compression of the spinal cord at the base of the brain, paralyzing the respiratory nerves, and completely checking the function of respiration. The importance of fracture also depends on the part of the bone where the fracture occurs, whether near or distant from a joint; on its direction, whether transverse or oblique; on the degree of displacement, and its cause; on its complication with other injuries; and, finally, on the age and health of the patient.

The composition of bones varies according to the age of the

patient. In early life the fibrous portions of the bones predominate over the earthy matter; in adult life the constituent portions are in equilibrium; and in old age the earthy matter has obtained the ascendancy. These changes are produced by the processes of deposition and absorption. In early life the process of deposition overbalances that of absorption; in adults the two processes are equal; and in old age absorption obtains the greatest activity, and the nutrient arteries are wholly or in part obliterated. These physiological laws change the character of the bones, rendering them less liable to fracture in early life, and more so as age advances. The predominance of the softer tissues in early life gives rise to an injury, which may be termed *bending* of the bones, where the earthy materials break, but the fibrous tissues do not give way. Such an injury should be treated in the same manner as complete fracture. Disease, too, may cause greater fragility of the bones, in which the softer tissues are absorbed and the earthy particles lose their cohesive properties. Instances are related where the bones become so brittle as to be broken by merely turning in bed, drawing on gloves, kneeling, and other slight causes. It frequently happens when fractures occur in patients laboring under a fragile condition of the bones, that union is obtained at an earlier day than in healthy subjects.

The disturbance of the constitution produced by the process of restoration of fracture, is usually moderate. But it is far otherwise with the sympathy of the system, created by inflammation occurring in large joints. Hence arises the general rule with regard to fracture of the extremities, that they increase in importance the nearer they approach the articulating surfaces. The direction of a fracture mainly depends on the direction of the force applied to produce it. Usually there is more displacement and more laceration of the surrounding soft parts in oblique fractures than in transverse. The nature of the force applied also determines the nature of the fracture, as to the number of the fragments, whether simple or comminuted. We are not to advise amputation of the limb simply on account of the number of the fragments into which the bone may be broken; for complete ossific union will take place where the number has amounted

to twenty or more. Neither should we despair of saving a limb if a large portion of the shaft of the bone should be crushed and exfoliate. I recollect examining a limb under the care of an eminent Massachusetts surgeon, where the shaft of the tibia was crushed between a vessel and a wharf, and most of the shaft had been removed, yet a new bone had been formed, and the patient had a good limb. Sometimes, though rarely, the obliquity of the fracture is so great as to split the bone longitudinally. This accident cannot be diagnosed unless there should be complete separation of the fragments, or on dissection. I have known a fracture of a tibia, of a peculiar dove-tailed character, without any displacement, which made the diagnosis so obscure as to bewilder the attending surgeon, an old and experienced man. The patient dying suddenly gave an opportunity to clear up the diagnosis by dissection.

The displacement between the fractured portions of bones is occasioned in part by the direction of the force applied to produce the fracture, but mainly by the action of the muscles inserted into the separated portions. Desault met with a remarkable case, proving the agency of the muscles in causing retraction of the limb. A patient fell from a height, and fractured the femur, causing shortening of the limb. Paralysis of the inferior extremities followed, and the limb recovered its full length. The paralysis being cured, the muscles resumed their contractile powers, and the limb again shortened. In bones of the extremities, particularly of the lower, the greatest thickness of the muscles is on the posterior and internal aspect of the bones; and their insertion being into the inferior fragment, or those parts attached to it, the upper fragment almost invariably overlaps, presenting a seeming anterior projection, which disappears on replacing the lower fragment to its original position.

We here deduce this practical suggestion, that efforts at reduction should be made on the lower fragment which alone is displaced. Transverse fractures do not usually show so much displacement as oblique. If the fracture should be through the broad epiphysis of the tibia, locomotion at first would not be seriously impeded, the displacement being but little. There are several kinds of displacement of fractured bones, as retraction,

rotation, overlapping, flexion, or altering the direction of the axis, and by slipping in a lateral direction, so that the axes of the two portions do not form a continuous line. The displacement by retraction is when one portion of the bone remains fixed and the other is drawn in the direction of the muscular fibres inserted into it. Fracture of the patella, olecranon, os calcis, and neck of the femur, present examples of this displacement. Overlapping is a modification of retraction, and is seen in oblique fractures of long bones. The force producing such a fracture connected with the action of the muscles may be sufficient to force the bone through the soft parts, making a complication known as compound fracture. That of rotation of the lower fragment is of great practical consequence to be remembered in treatment, especially in fracture of the femur, as the weight of the foot and leg has a constant tendency to cause this displacement, generally by turning outwards. The long bones when fractured are liable to form an angle at the point of fracture. And if deformity exists after recovery, this angle almost always projects anteriorly, — the effect of the action of muscles inserted into the posterior face of the bone. Lateral sliding is seen in transverse fractures with or without shortening.

No one of the physical signs of fracture is constant. In superficial bones, if seen before there is much swelling, the best diagnostic sign is alteration in the outline of the bone, perceptible to the sight and touch. Crepitation, distortion, pain and loss of voluntary motion, will usually enable the surgeon to decide as to existence of fracture. But it should be remembered that crepitas may be produced by other causes, as friction of articulating surfaces in a diseased condition; an emphysematous condition of the soft parts, frequently following severe injuries, will, also, to the inexperienced present a deceptive crepitation. Pain, swelling, immobility and distortion, may all be produced by dislocation and contusion. While, on the other hand, where fracture exists the displacement may be so slight or none at all, as in the case referred to; or, in the separation of the epiphysis of the tibia, as not essentially to interfere with the function of the bone; or the separation may be so great between the fractured extremities that crepitation cannot be produced, as in the fracture of

the cervix femoris, connected with great retraction. A surgeon cannot easily be mistaken in fracture of the long bones, if he should institute an accurate comparison of the length, form, and capacity for voluntary motion. But should there be uncertainty as to the existence of fracture, the safest course for the patient and the reputation of the surgeon, is to adopt such treatment as would be indicated in case of the actual existence of fracture. In such a case it is the duty of the surgeon to institute a careful examination, conducted with a firm yet humane hand; and if he cannot satisfactorily decide as to the existence of fracture, not to continue the search in such a manner as to compel the patient, in the extremity of his agony, to exclaim,

> "I had no fracture, skillful leech, till you,
> By your rude handling broke the bone in two."

When fracture occurs in the aged, debilitated, or diseased, or in those in whom the vital forces are carried on feebly, they do not well bear the additional interruption arising from the pain, irritation and confinement consequent thereto. In the aged, where the organs of circulation have become diseased in their structure, after a long recumbency, caution should be used in changing to an erect position, lest there should be too much labor suddenly thrown on an enfeebled heart, and instant death is the consequence. Fractures are dangerous when occurring with inebriates, especially so if complicated with delirium tremens. Abscesses, sphacelation and death may occur from the insane attempts of such patients to free themselves from the dressings necessary to retain the fractured bones in apposition. Fractures occasioned by projectiles, complicated with wounds communicating with the open air, are more dangerous than the same degree of comminution without external wounds. Fractures involving large joints are dangerous, from the constitutional irritation liable to follow. The degree of danger must be estimated by the severity of the injury, the constitutional condition of the patient, the season of the year, and the ability of the patient to bear the necessary restraint.

To effect the reduction of fracture it is not always necessary to use much force. A steady, moderate power, continued a

sufficient time to overcome the retractive strength of the muscles, will generally suffice. In those cases which resist such efforts, and the effects of bloodletting and contra stimulants, it is good practice to place the limb in a flexed position, with a view to diminish the muscular resistance, which will in most cases subside in twenty-four hours. For the purpose of retaining the fragments in apposition, the first point claiming consideration is position. A large majority of fractures would unite perfectly well without the application of any apparatus, if the fragments could be maintained in a state of rest. But in most cases of fracture of the extremities, position alone will not maintain them in apposition. The application of splints then becomes necessary. In applying splints we only anticipate nature in her process of repairing such injuries; her first effort being to surround the broken bone with what is called provisional callus, which may not be inaptly called, *nature's splint*. In the application of splints it is necessary to see that they are made to press equally on all parts of the limb, by filling all the inequalities of the limb with carded cotton or some other soft material. A great variety of apparatus has been invented and used by the profession for the treatment of fracture. Surgeons, particularly those commencing practice, oftentimes provide themselves with adjusters and splints made of neatly carved wood, elegantly varnished and ornamented with polished steel and brass, and other paraphernalia, which may be offered them for the treatment of fractures. All these things have their use. Spread them out to the wondering gaze of the admiring crowd; their inference is, if the owner has sufficient knowledge to apply them, is well qualified to undertake the treatment of any case, however severe or intricate.

A man to be a good surgeon must be a mechanic; he must have some mechanical ingenuity; he must be able to take the plane and the saw in hand, and make himself an apparatus, should an occasion occur suited to the case. No matter if he cannot find in the books any authority for the particular kind of apparatus which he himself may get up; yet, if he takes for his motto, *minister naturæ et interpres est*, and follow its teachings, he will be successful in his practice.

REPORT OF THE COMMITTEE ON SCARLATINA.

MR. PRESIDENT:

IN treating upon Scarlatina your committee do not design to notice the general form, course, or treatment of the disease; this is laid down sufficiently plain in almost every treatise upon the theory and practice of medicine. Yet there are some things in its pathology and treatment that may well claim our attention.

First: is it contagious? This question has been decided by almost all authors in the affirmative, though some have entertained doubts upon this point. Nothing in relation to this malady is of more importance than the establishment of this question correctly in the mind of the practitioner. This is so decidedly plain that it needs no argument here to impress it. If we define contagion to be the contact of poisonous particles emanating from a rotten marsh, or floating in an atmosphere poisoned by any unfortunate and unknown combination of sulphur, phosphorus, carbon and azote, united with hydrogen, as well as that emanating from the diseased surface, then there can probably be no question that it is contagious. But if we define contagion to be from a virus by inoculation, contact, or miasm from the diseased body, there would be some doubt. Now in deciding whether scarlatina is or is not contagious, properly, we are not obliged to take as evidence a disease propagated by any unclean or neglected bed, or any ill-ventilated room; for if we do we shall find almost all diseases contagious. But under ordinary circumstances, with proper cleanliness and ventilation, is it contagious? Some diseases are decidedly so under all circumstances, as small pox, measles, lues venera, &c. Compared with these, scarlatina does not properly admit of being ranked among the contagious diseases.

We may for practical utility resolve the question into this form: Are children of the same family as safe in the same dwelling with the fever, with ordinary cleanliness, as when separated, yet remaining within the district of the epidemic? In point of expediency it certainly would be more proper to advise a separation, for if this is an error it is a safe one. We have what seems to be conclusive evidence of its contagiousness, in the successive attacks of members of the same family; and the physician would subject himself to unpleasant censure if by his advice they had remained together. Nevertheless, *de facto*, would not this same family have received the attack any where within the limits of the epidemic? Families have their peculiar idiosyncracies and are obnoxious to the same prevailing diseases. There is some peculiar atmospheric condition which adapts itself to the constitution of members of the same family, although separated, and developes the same disease simultaneously. Notwithstanding the doubts of the contagion of scarlet fever ordinarily, yet in its more malignant type, and in neglected and filthy rooms, there can be no doubt it is capable of being propagated.

Scarlet fever has been known only three hundred years as a distinct disease; and it seems almost incredible that a disease of so many characteristic marks, so different, too, from any and all others, should so long have escaped the particular notice of the ancient physicians. It probably did exist prior to this period, but was classed among the other eruptive fevers; yet there is reason to suppose that it had its origin at a much later period than many other eruptive diseases. We have certainly no account of it among the Greeks or Romans. Ingrassias is said by Dr. Copeland to have given it its first identity; since which time it has suffered no neglect on the part of medical writers.

Passing over the common form of the fever, your committee would call your attention to its nephritic complication. Every one who has had any thing to do with its treatment must have observed the peculiar tendency to inflammation of the kidneys, which may or may not have resulted in anasarca. This occurs, or rather is made manifest, during the desquamatory period. There is no reason to suppose that there is any peculiar pathological connection between the fever and the kidneys, more than

with any other organ. The epithelial lining of all the cavities takes on more or less of the inflammation; in fact, it is a cutaneous and endeperdermial disease; hence the vomiting, diarrhœa, coriza, ottites, &c.; but from the peculiar anatomical construction of the kidneys any epithelial disease of their parts would have a more disastrous consequence. The *tubuli uriniferi* are so minute that the desquamatory epithelial scales form a mechanical obstruction, giving rise to urinary congestion, which, if not removed, produces a second and higher degree of inflammation and degeneration. Desquamation takes place upon other cavities, but for obvious reasons not with the same effect. We often observe about this period inflammation of the synovial membranes, which, doubtless, is connected with the tesselated epithelis of those parts.

There is more or less inflammatory action upon the tubes of the kidneys from the commencement, but it is not immediately noticed. Neither is it called for until desquamation commences; nor is it always then, for in most cases the scales are easily washed away by the urine without any obstruction. These scales can be discovered in abundance in the urine under the microscope. Neither is this complication confined to the worst form of the fever, for it frequently occurs in scarlatina simplex, and when the patient had not been confined to the bed or even the room. This fact of itself proves that it is more of a mechanical obstruction than otherwise.

Of course dropsy is the result of such complication. The peculiarity of this form of dropsy is, that it will not pit on pressure, or move by gravity to the most depending parts. It will not run from the eyelids, or from one side to the other, or even into the extremities. It is a sthenic dropsy, ponded up in tissue, possessing all its tonic power by a dam across the kidneys. This may be in consequence of its sudden appearance, coming up unlike other dropsies before debility has taken place. Some authors say it bears a strong resemblance to Bright's Disease, and does actually sometimes result in the same melancholy nephritic degeneration. It may in its present effect be similar, yet there is a wide difference in the cause and cure. One is mechanical, and sudden in its appearance, and is easily cured;

the other is not mechanical, is slow and insidious in its progress, and is not easily cured. In both, albumen and epethelial scales are passed in the urine; but the scales are not so abundant in Bright's Disease as in the other, and we do not find oil globules in scarlatina, which is characteristic of Bright's Disease. The similarity in their symptoms, and frequently in their final termination, does not make it that peculiar affection so aptly described by Dr. Bright. The pathology of this form of the disease indicates its treatment. Cooling diuretics, to wash away the obstruction, is the proper treatment. Nit. pot., jalap, and squills, either alone or combined, if administered promptly, are usually sufficient. The more stimulating diuretics should be avoided. It is always best in every case of scarlatina, however mild, to have this complication in mind, and administer freely the mild diuretics, especially at the first commencement of desquamation.

In the general treatment but little need be said aside from the ordinary antiphlogistic course. But little danger need be anticipated, except in the malignant form, when prompt and active measures are required, or the patient dies. And it is a melancholy fact, and mortifying to science, that it often proves fatal, regardless of remedies. What seems to be most demanded in the malignant form beside tonics, of which bark is the best, are disinfectants to the fauces—*ch. pot.* prepared in *mur. acid*, and given internally in as large doses as the age of the child will admit, acts charmingly as a disinfectant. The throat should be kept as free as possible of the putrid secretions, by gargles, or from time to time small emetic doses of ipecac. There is sometimes more danger from the absorption of these secretions than from the sloughs. It is frequently the case that it forms a crisis apparently favorable, the tongue becoming clean, followed immediately by a fatal train of symptoms by poison. There is no way to prevent this unhappy termination but by proper attention to the throat.

In the conclusion of this report your committee would call your attention to belladonna as a prophylactic and remedy. This medicine was first published as a preventive in scarlatina by Hahnamann, the celebrated author of "Homœopathy." However much this peculiar author may have been led into error by

the brilliancy of his own genius, no one will deny that some good things have been written by him. Neither does the fact that it was first treated upon by him prove any thing for or against that peculiar system of practice of which he stands as the head, or afford any reason why it should not be in general use, providing the fact becomes well established. Belladonna was well known to have sometimes produced a rash, resembling that of scarlet fever. This fact pointing toward his fundamental proposition, *Similia similibus curentur*, led him to the supposition that it was a remedy in this disease. But it in fact only proves that a conclusion jumped at through a false theory does sometimes prove correct; and it is by such accidental facts that false theories are sustained generally.

At the present day authors are divided in their opinions as to the prophylactic property of this remedy. It is very evident, however, that it has not received that trial by physicians generally as it deserves. For if it has no efficacy, in the quantity used, it is harmless, and it is a safe experiment. Although it may possess the therapeutical properties attributed to it by Hahnamann, yet he was very evidently wrong in its application, and it was not by homœopathic doses that he himself made the discovery of these properties. There is no confidence to be placed in it in infinitessimal doses. Although Watson recommends it in small doses, yet they have no relation to homœopathy.

There can be no rational explanation of its *modus operandi* other than by the peculiar eruptive disease which it produces. It would then come under the same pathological law by which the vaccine virus governs small-pox. The manner of administering it is to dissolve three or four grains in one ounce of distilled water, of which from six to twenty drops may be given three times a day to the patient. Its tendency is to prevent the disease, or modify it essentially. And if it will do no more than change *scarlatina maligna* to its simple form, it forces itself upon the consideration of every practitioner.

Respectfully submitted,

WM. H. H. MASON, for the Committee.

REPORT OF THE COMMITTEE ON HERNIA.

Mr. President and Fellows:

As Chairman of the Committee on Hernia I present the following report:

Having received no instruction as to what was expected of your committee, and having in the meantime received no communication from others on the committee, I have felt at liberty to select any part of the subject for particular remark at this time.

It has occurred to me that it would be more interesting to the Society to listen to the statement of some facts regarding anomalies in hernia, rather than to a dissertation on the general subject, inasmuch as the usual or common forms are sufficiently described in works of general surgery, or in especial treatises upon this subject.

I will first call your attention to *Femoral Hernia*, as being the less common of the two principal forms. Femoral hernia has also presented to my observation more anomalies than any other.

Case I. (1825). An unmarried female was seized with colic, accompanied by a small tender tumor on the inside of the thigh. The diagnosis was hernia. Taxis was unsuccessful in accomplishing the reduction. The bowels moved sluggishly and with great increase of pain. The tumor increased in size, with fluctuation. A puncture gave exit to pus and serum. The diagnosis was changed to abscess. In a short time the patient died. The *post mortem* examination revealed a femoral hernia, containing intestine and omentum. A small muckle, composed of one side of the intestine, was in a state of mortification, and a portion of omentum, of the size of a butternut, had suppurated.

CASE II. Mrs. —— had the usual symptoms of femoral hernia. I saw the patient in consultation. There was, as I thought, distinct fluctuation. I advised an operation. This was overruled on the ground that there was no protrusion of intestine, and that if omentum was protruded and remained unreduced, it was unimportant in structure and function.

The abscess was allowed to burst. The patient died, after lingering some time in a most wretched condition. No examination was allowed.

CASE III. Mrs. —— had symptoms of femoral hernia. After a time there was a partial abatement of these. The bowels were slightly pervious. I saw the patient in consultation, and found her greatly exhausted, with constant nausea, and occasional vomiting. There was a large fluctuating tumor low in the groin.

An operation was advised, which was readily assented to by the physicians present. I remarked that I was prepared by previous cases to find the tumor to contain serous pus, omentum and intestine. On commencing the operation, so complete was the consolidation of all the coverings, I opened at once into a large collection of pus and serum. After a teacupful had been discharged, I enlarged the incision, and exposed a portion of omentum in a state of suppuration. This was carefully laid open, when there was exposed a small nuckle of intestine, ecchymosed but not strangulated. I removed the omentum, and dressed the wound in the usual way.

CASE IV. I was called in the night to see a woman said to have an attack of colic. As there was a physician in attendance whom I knew to be perfectly competent to render all the assistance necessary in such a case, and as I was not well at the time, I declined going until morning.

On my arrival the next day I found a woman of more than seventy years, with the alarming symptoms usually attendant upon strangulated femoral hernia. The physician called my attention to a small hard tumor at the upper and inside of the thigh. This the old lady persisted in saying had nothing to do with the colic, as it had been there at times ever since she was a girl, and once had come to a head and broke.

After some delay I commenced the operation for hernia. The

different coverings were consolidated, and the tumor contained serous pus, omentum and intestine. The patient recovered.

Case V. Mrs. —— had constipation and colic, with a tumor in the proper location for femoral hernia. I advised the operation for hernia, stating that it might prove simply an abscess, or an abscess complicated with hernia. An opening through the coverings, which were consolidated, gave exit to a table-spoonful of pus. Hernia in this case did not exist. The patient of course had a rapid recovery.

Case VI. Mrs. —— discovered a small, painful lump in the groin. She had nausea, vomiting, and copious evacuation from the bowels. The physician in attendance pronounced it a case of hernia. The patient, a woman of more than ordinary intelligence, said that the tumor was nothing unusual, and that she had had "that bunch, by turns, ever since she was a girl, and no harm had ever come of it." Attempts were made to return the protruded intestine several times every twenty-four hours, for several days. I was called to see the patient.

There was a large tumor in the groin, red and exceedingly tender to the touch. The abdomen was tumid but not very tender; there was nausea, but no vomiting since the first day of the attack. So mild were all the symptoms at this time, and indeed had been throughout the continuance of the disease, that the attending physician, a very intelligent man, doubted if hernia existed. From the location, size, hardness and tenderness of the tumor, I gave the opinion that it was femoral hernia, and advised an operation.

Just at this time Prof. Phelps, of Windsor, Vt., arrived. On examination he coincided in this opinion. Indistinct fluctuation was detected, and I remarked that it might prove an abscess only, or we might find the tumor to contain pus, omentum and intestine. The skin could not be pinched up, so an incision with a scalpel was made to the depth of half an inch through condensed and inflamed textures. A quantity of serum and pus flowed out, and some one remarked, "It is only an abscess, after all." By enlarging the incision a portion of omentum was exposed. This was carefully incised, and a nuckle of intestine, darkly ecchymosed, rose into view. The stricture being divided,

there flowed from the abdomen not less than three glasses of colored serum.

So much doubt existed in the minds of all present as to the real condition of the intestine, some little delay occurred before it was decided what course to take with the apparently mortified intestine. It was unanimously decided to return it, which was done with ordinary ease.

Such adhesions had formed at the ring as to make it impossible to return the omentum and sac. These were consequently removed close up to the ring, and the ordinary dressing applied.

A large quantity of tepid water was thrown into the rectum the same evening, and a copious discharge from the bowels followed the next day. The patient was very cheerful and comfortable, the tumefaction of the abdomen subsiding. On the next day fluid excrement passed through the wound. Compresses were applied. For several days every thing looked well. The bowels were moved freely with castor oil soon after the liquid excrement passed through the wound. This patient slowly recovered.

In all the foregoing cases I was called as counsel, and after they had existed several days. How much improperly conducted taxis had to do in the production of inflammation, consolidation of the coverings, and the formation of pus, or the production of ecchymosis, I am, of course, unable to say. It is, however, my opinion, that taxis, ignorantly or injudiciously applied, is more than even a badly performed operation. In many instances when I am called upon to operate, I find a consolidation of the textures as a consequence, I believe, of too great violence in attempts to reduce the hernia.

INGUINAL HERNIA.

I have met fewer cases of this form of hernia, with complications, than of crural.

Case I. A man, of middle age, had pain and tenderness in the abdomen, with distention and persistent constipation. He was treated for colic. The patient supposed that he had had at

one time, a few years before, a small hernial tumor, which had been readily returned into the abdomen.

A fullness was observed to commence just above the external inguinal ring, and ascend obliquely towards the crest of the illium. It was supposed to be an internal tumor occasioned by impaction of the cæcum, or invagination of intestine. The patient died. A *post mortem* examination revealed an oblique inguinal hernia, which descended through the inguinal ring far enough to get under the edge of the internal oblique and transversalis muscles, from which point it ascended between the muscles, and was strangulated at the internal ring. The intestine was in a state of mortification.

Case II. An old man, of nearly seventy, had colic, constipation, with tenderness and distention of the abdomen. A physician was called, who soon recognized the symptoms as those usually attendant upon hernia. He found upon careful search a small oblique inguinal hernia, and attempted to reduce it by taxis. For three days he contiued his efforts without success. At this time I was called to see the patient.

The bowels had moved once copiously the day before I saw him. No injury had been inflicted by improper attempts to reduce the tumor by taxis. This the physician informed me had been nearly accomplished many times, but would immediately descend when his efforts were suspended. On inquiry the patient insisted that the tumor was not there before the time he was attacked with the pain and tenderness of the abdomen.

I remarked to the physicians present, and also to the patient, that unless we were quite sure that hernia did not exist, we should proceed as if it did. Consequently an incision was made over the tumor, through the common coverings. This section exposed an oblong, transparent cyst, containing a fluid. This proved to be situated upon the spermatic cord, at the external abdominal ring, and was a hydrocele of the spermatic cord. The cyst was laid open, and the wound left to heal by granulation. An active cathartic completed the cure.

Case III. A boy, seventeen years old, left home on Monday morning for school, perfectly well and in high spirits. Before reaching his place of destination he was seized with distress at

the stomach, and vomited his breakfast. Calling at a house he procured some warm peppermint water, which gave him some relief. He proceeded on his way to school, but soon became so ill that he was carried home and a physician sent for. On examination a small, conical-shaped tumor was found extending from the scrotum to the abdominal ring, the base being in the scrotum. There were present pain in the tumor and abdomen, with distension of the latter.

On the third day my friend, Dr. John Clough, of Enfield, saw the patient. On the fourth, Dr. Collins, Dr. Clough, and myself were in attendance.

A strong light falling on the tumor, showed it to be diaphonous. Abundant evidence of the presence of hernia also existed. Had we indeed met with one of those rare cases of hydrocele of the hernial sac? So rare that Mr. Curling, during his long connection with the London hospital, had seen but one; Mr. Pott, two; Mr. Pelletan, two; M. Boyer, one; and Mr. Lawrence, one. And these, it is said by Mr. Erickson, in his late work, are all the cases on record, so far as he is informed. An operation was at once decided on. An incision into the scrotum gave exit to not less than three glasses of a limpid fluid (probably serum) which had been contained in the tunica vaginalis testis. This enabled me to examine more satisfactorily the upper portion of the tumor, which proved to be an oblique inguinal hernia. The remaining steps of the operation were accomplished without difficulty. Intestine only was contained in the sac. This was swollen, and so deeply ecchymosed that great fear was entertained that sloughing might ensue. The boy, however, had a good recovery, and may, I trust, live long to be the pride and comfort of his parents, to whom he is an only child. In concluding this case, and with it this report, I feel that I may be pardoned in stating that the boy refused to take ether or chloroform; and such was his coolness and fortitude that while suffering the operation he took hold of my watch-chain, and asked if it was gold. When told that it was, he replied, "Oh, how I should like to have it!" I trust that a life of industry and virtue may fill his largest desire.

DIXI CROSBY, *Chairman.*

REPORT OF DELEGATES TO ATTEND THE EXAMINATION AT DARTMOUTH COLLEGE, NOV. 1854.

To the N. H. Medical Society:

THE examination took place on the 7th day of November, and your delegates being present were exceedingly interested in them. The number of candidates for the degree of M. D. was smaller in proportion to the size of the class, in consequence of the unusually large number in it of those attending their first course of lectures.

The whole class numbered sixty-three, of whom thirty-four were attending their first course, which is a very sure indication of a much larger class next term.

Only eight were admitted to examination. They appeared perfectly familiar with the various branches of medical science, and gave us the most gratifying and convincing evidence of thorough and systematic instruction.

Your delegates were highly gratified to find the institution abundantly supplied with preparations, specimens, drawings, engravings and models for illustrations in the various departments of medical science; and with the present able, industrious and thoroughly qualified Faculty, we cheerfully advise the New-Hampshire Medical Society to patronize our own school of medicine.

We are of opinion that the Medical Department of Dartmouth College is fully equal in all respects to any school in the United States similarly located, and that any student can attend at least two courses of lectures at this school with greater profit than any of the schools in the large cities.

Our school of medicine, located as it is in a comparatively small and most pleasant and beautiful village, devoted entirely to education, is in no ways liable to the many unhappy influences

to which similar institutions are subject in our large cities. This we deem an important consideration, and should have an influence on our minds when we advise *our* students where to attend medical lectures.

W. W. BROWN,
JAMES F. SARGENT.

June 5, 1855.

DR. GARLAND'S LETTER.

LAWRENCE, June 1, 1855.

DR. PEASLEE:

Dear Sir,—When I saw you last I forgot to call your attention to the medical properties and uses of the Yellow Jasmine, or Jassamine, or Gelseminum Semperverius, which grows wild in considerable abundance in Virginia. I think it will be classed among the nervines; still it is given in febrile diseases in from twelve to sixty drops, particularly in fever and ague, with three to five grains of quinine every two hours, till three doses are given. It affects some much more than others. Usually in twelve to twenty drop doses of the tincture a feeling is produced of *utter inability* to move, particularly the arms—still you *can* move. It is unlike any thing ever felt. I took twenty-five drops sitting in my office, and when the operation came on I tried to think of some feeling to compare it with, and could think of nothing but the first dawn of consciousness after a full or complete syncope. It is a species of intoxication, which goes off leaving no headache or other unpleasant feeling.

In neuralgia, rheumatism and many uterine diseases, it has been found very efficacious. I have given the tincture in several cases of neuralgia with flattering results. The greatest benefit will be realized in the *periodical* type of that disease.

Have the goodness to call the attention of the Society at Concord to this medicine. Some one may know something more of its properties and uses. The bark of the root is the part used. Some prefer to use it with cornine instead of quinine—cornine, from Cornus Florida. When better understood it will be a remedy of great value and efficacy, I have no doubt.

Respectfully, yours, G. W. GARLAND.

CATALOGUE

OF THE

OFFICERS AND FELLOWS

OF THE

NEW-HAMPSHIRE MEDICAL SOCIETY,

For the Year 1855.

President.

ADONIRAM SMALLEY, M. D., Lyme.

Vice-President.

FRANCIS P. FITCH, M. D., Amherst.

Secretary.

E. K. WEBSTER, M. D., Boscawen.

Treasurer.

L. M. KNIGHT, M. D., Franklin.

Councillors.

William P. Stone,	B. H. Phillips,
Levi G. Hill,	C. H. Shackford,
T. H. Marshall,	A. F. Carr,
J. P. Whittemore,	J. H. Crombie,
James Batcheller,	Silas Cummings,
John Clough,	E. R. Peaslee,
George Sanborn,	M. R. Warren.

Censors.

Cyrus K. Kelley,	Oliver Goss,
T. J. W. Pray,	Charles Palmer,
S. G. Dearborn,	G. A. Phelps,
E. L. Griffin,	T. M. Gould,
F. Boyden,	Hosea Pierce,
L. C. Bean,	Adams Moore,
Alvah Moulton,	J. F. Hall.

Corresponding Secretaries.

J. B. Abbott,	Harrison Eaton,
John O. French,	C. F. Elliott,
E. Spaulding,	John Clough,

George Sanborn.

Delegates to Dartmouth College.

Silas Cummings,	J. P. Whittemore.

Delegates to the American Medical Association.

E. K. Webster,	Ezra Carter,
Wm. H. H. Mason,	A. Smalley,
L. M. Knight,	W. W. Brown,
P. A. Stackpole,	W. P. Stone,
J. S. Fernald,	Alvah Moulton,
J. C. Eastman,	Sylvanus Bunton,
Luke Miller,	Hosea Pierce,

A. A. Gerrish.

Orators.

P. A. Stackpole,
J. C. Eastman,

Substitutes.

L. G. Hill,
T. H. Marshall.

Fellows.

James B. Abbott, Sanbornton.
Frank B. Ayer, Laconia.
James Batcheller, Marlborough.
William W. Brown, Manchester.
Jeremiah Blake, Tamworth.
William D. Buck, Manchester.
Stephen Brown, Deerfield.
Luther C. Bean, Lebanon.
J. W. H. Baker, Plainfield.
Sylvanus Bunton, Manchester.
Charles Bell, Concord.
Josiah Crosby, Manchester.
Thomas Chadbourne, Concord.
Dixi Crosby, Hanover.
Ezra Carter, Concord.
Alonzo F. Carr, Goffstown.
James H. Crombie, Derry.
Silas Cummings, Fitzwilliam.
John Carr, Sanbornton.
Thomas H. Currie, W. Boscawen.
John Clough, Enfield.
S. D. Colburn, Bath.
Nathan Call, Concord.
Ira S. Chase, Bristol.
Abraham O. Dickey, Lyme.
James Danforth, New-Boston.
S. G. Dearborn, Milford.
Josiah C. Eastman, Hampstead.
Harrison Eaton, Merrimack.
Charles F. Elliott, Somersworth.
Francis P. Fitch, Amherst.
John S. Fernald, Barrington.
Otis French, Gilmanton.
S. P. French, Richmond.
David B. French, Bath.
Daniel F. Frye, Francestown.
John O. French, Chesterfield.
Charles P. Gage, Concord.
G. W. Garland, Lawrence, Ms.
E. L. Griffin, Derry.
Oliver Goss, Lake Village.
Alfred A. Gerrish, Mont Vernon.
True M. Gould, Raymond.
Jeremiah F. Hall, Wolfborough.
Jacob C. Hanson, Great Falls.
E. B. Hammond, Nashua.
Levi G. Hill, Dover.
Geo. H. Hubbard, Manchester.
C. B. Hamilton, Lyme.
Moses C. Hoit, Bristol.
Charles L. Hartwell, Farmington.
L. M. Knight, Franklin.
Cyrus K. Kelley, Sanbornton Bridge.
T. B. Kittredge, Keene.
L. F. Locke, Nashua.
William Laighton, Portsmouth.
Noah Martin, Dover.
Andrew McFarland, Jacksonville, Ill.
T. H. Marshall, Mason.
Wm. H. H. Mason, Moultonborough.
Ebenezer G. Moore, Concord.
Adams Moore, Littleton.
Valentine Manahan, Springfield.
Alvah Moulton, Ossipee.
Luke Miller, Fitzwilliam.
Edmund R. Peaslee, Hanover.
Edward H. Parker, N. Y. City.
Leonard W. Peabody, Epsom.
D. S. Prescott, Temple.
Charles Palmer, Strafford.
George A. Priest, Hillsborough.
Thomas J. W. Pray, Dover.
Hosea Pierce, Winchester.
A. H. Robinson, Salisbury.
William B. Reynolds, Great Falls.
Henry Rockwood, New-Boston.
Nathan Sanborn, Henniker.
James F. Sargent, Concord.
Joseph H. Smith, Dover.
John L. Sweatt, Newport.
Albert Smith, Peterborough.
P. A. Stackpole, Dover.
Edward Spaulding, Nashua.
Adoniram Smalley, Lyme.
M. D. Senter, Pembroke.
William P. Stone, Danbury.
C. H. Shackford, Somersworth.
Jesse A. Sanborn, Campton.
Nathaniel Shannon, Loudon.
Betton W. Sargent, North Barnstead.
James R. Smiley, Grafton.
George Sanborn, Sandwich Centre.
William A. Smith, Thornton.
William B. Stevens, Bedford.
Thomas Sanborn, Newport.
Jacob Straw, Henniker.
R. P. J. Tenney, Pittsfield.
George B. Twitchell, Keene.
John. E. Tyler, Concord.
E. K. Webster, Boscawen.
Nahum Wight, Gilmanton.
Moses T. Willard, Concord.
Peter P. Woodbury, Bedford.
H. A. Weymouth, Andover.
M. R. Woodbury, Concord.
Thomas W. Wilson, Salisbury.
J. P. Whittemore, Chester.
E. F. Wilson, Rockville, Conn.
Stillman G. Wood, North Enfield.
S. M. Whipple, New-London.
John Wheeler, Barnstead.
M. R. Warren, Wolfborough Bridge.

THE

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-SIXTH ANNIVERSARY,)

Held at Concord, June 3 and 4, 1856.

CONCORD:
STEAM PRINTING WORKS OF McFARLAND & JENKS,
PHENIX BLOCK, MAIN STREET.
1856.

PROCEEDINGS.

The sixty-sixth anniversary of this Society was held at the Court House, in Concord, on Tuesday and Wednesday, June 3 and 4, the President, Dr. Adoniram Smalley, in the Chair. The proceedings of the Council were read by the Secretary and accepted. The following gentlemen, recommended by the Council, were elected Fellows, subscribed to the Constitution, and took seats as Members:

John Bell, M. D., Derry.
Luther Pattee, M. D., Candia.
Albert A. Moulton, M. D., Concord.
Henry B. Brown, M. D., Hartford, Vt.
Mark Walker, M. D., North Barnstead.
David L. M. Comings, M. D., Swanzey.
Geo. W. Pierce, M. D., Winchester.
Abraham Robertson, M. D., Manchester.
Nathaniel E. Gage, M. D., Manchester.
Alonzo A. Whipple, M. D., Wentworth.
Abner Ham, M. D., Dover.
Isaac W. Lougee, M. D., Alton.
Geo. W. Manter, M. D., Auburn.
Hosea B. Burnham, M. D., Epping.

Ariel Hunton, M. D., of Hyde Park, Vt., and Walter V. Wheaton, M. D., of the U. S. Army, were elected Honorary Members.

The President announced the following Committees:

On Nominations—Drs. J. S. Fernald, J. P. Whittemore, E. Carter, J. Clough, A. Smith, H. Pierce, W. H. H. Mason.

On Treasurer's Accounts—Drs. R. P. J. Tenney, W. P. Stone, W. W. Brown.

Prof. E. R. Peaslee, Committee on Surgery, made a very instructive verbal report, relating several interesting surgical cases.

At 12 o'clock the President, Dr. A. SMALLEY, read his annual address. Its subject was, "Progressive Medicine, its Relations to Society, the other Sciences and Professions."

Dr. Fernald, from the Committee on Nominations, made a report, and the following gentlemen were elected officers for the ensuing year:

President,

FRANCIS P. FITCH, M. D., Amherst.

Vice-President,

GEO. B. TWITCHELL, M. D., Keene.

Secretary,

E. K. WEBSTER, M. D., Boscawen.

Treasurer,

L. M. KNIGHT, M. D., Franklin.

Councillors,

B. H. Phillips,
C. H. Shackford,
Albert Smith,
J. H. Crombie,
James Bacheller,
V. Manahan,
M. R. Warren,
E. G. Moore,
T. J. W. Pray,
S. G. Dearborn,
J. P. Whittemore,
Silas Cummings,
S. G. Wood,
Geo. Sanborn.

Censors,

Cyrus K. Kelley,
Charles Palmer,
John Bell,
T. M. Gould,
S. P. French,
A. A. Whipple,
Alvah Moulton,
Oliver Goss,
C. L. Hartwell,
Luther Pattee,
Wm. Laighton,
Hosea Pierce,
James R. Smiley,
J. F. Hall.

Corresponding Secretaries,

J. B. Abbott,
Levi G. Hill,
Wm. W. Brown,
J. F. Hall,
T. H. Marshall,
Luke Miller,
John Clough,
Wm. Laighton.

Delegates to Dartmouth College,

Wm. H. H. Mason,	Hosea Pierce.

Delegates to the American Medical Association,

E. K. Webster,	W. W. Brown,
A. Smalley,	C. P. Gage,
J. P. Whittemore,	P. A. Stackpole,
Wm. Laighton,	Thos. Chadbourne,
L. M. Knight,	Geo. B. Twitchell,
Geo. H. Hubbard,	S. Bunton,
Josiah Crosby,	H. B. Brown,
Abner Ham,	John Bell,

John L. Sweatt.

Orators for 1857,	*Substitutes,*
Thos. H. Marshall,	Sylvanus Bunton,
Thos. J. W. Pray.	Abner Ham.

The President said that Dr. E. H. Parker, of New-York city, who was present, had a paper which he wished to read to the Society, and at as early an hour as possible, because he expected to be obliged to leave soon.

On motion of Dr. E. R. Peaslee it was *Voted*, that Dr. Parker read his paper now.

On coming forward Dr. Parker said:

Mr. President,—May I be indulged in a few words of personal explanation? It must seem to you and to the Society a very strange thing that I should have come so far to read so short a paper as this upon "the results of the quantitative and qualitative analysis of homœopathic medical preparations." But I have what I consider a good and sufficient reason for doing so.

Since I left this city, sir, it has been my fortune to hear occasionally one and another rumor affecting, now my personal habits, now my moral character, and now my professional reputation. I have hitherto contented myself with authorizing and requesting my friends to contradict them as they met them, and this I believe has been done. But about six weeks ago a very particular friend of mine of this State wrote to ask me if there was any foundation for a grave rumor that was in circulation to the effect that I had become a homœopathist. I at once answered no. Only two weeks since, from a different source, the same rumor again reached me, and again through a friend to whose

good opinion I could not be indifferent. It happened that I had in my drawer the paper which I have in my hand, and which I was preparing to read before a Society in New-York; and I at once determined to complete it, and, if practicable, come here to read it. That I have done well I can not doubt, for, since I have been in this hall, another friend has repeated to me the rumor, and asked if it could be true. Such a charge, sir, strikes at my professional reputation in such a manner that it may do me vast injury, and can not be ignored. It tends to drive from me professional friends, and to make them my most decided enemies; to such a charge I am not indifferent. I would go very far to make a friend, but I would go farther to keep one; and I am sure that there are many in this Society whom I may with pride number among my friends. I have therefore come here to say before you and to you that this charge is *false*, is *baseless*, and, as I believe, is in its origin *malicious*. With this full and flat denial of the charge I must content myself; and with many thanks for the patience with which you, sir, and the Society have listened to these personal matters, I proceed to read the paper of which I have before spoken.

Dr. Parker then read a very interesting and instructive paper on the "Results of the Quantitative and Qualitative Analysis of Homœopathic Medical Preparations;" a copy of which was requested and referred to the Committee on Publication.

AFTERNOON SESSION, 3 o'clock.

Prof. Albert Smith, from the Committee on Quackery, made a report, which was accepted and referred to the Committee on Publication.

Dr. J. P. Whittemore presented the report of the delegates to attend the Medical Examinations at Dartmouth College, which was accepted and referred to the Committee on Publication.

Dr. Mason, from the Committee on Practical Medicine, made a report, which was accepted and referred to the Committee on Publication.

Dr. Albert Smith presented the report of the Committee on Indigenous Botany and Materia Medica, which was accepted and referred to the Committee on Publication.

MORNING SESSION, WEDNESDAY, June 4.

Dr. Hubbard offered the following resolution, which elicited some discussion and was indefinitely postponed:

Resolved, That the Treasurer be instructed to pay no hotel bills, hereafter incurred, except the annual dinner.

On motion of Dr. Mason, Drs. A. Smith, Stackpole and Hubbard, were appointed a Committee to examine Patients.

Dr. Fernald, from the Committee on Nominations, submitted the following list of Chairmen of Special Committees, with the subjects to them committed:

On Surgery—Dr. Geo. H. Hubbard.

On Practical Medicine—Dr. W. W. Brown.

On Epidemics—Dr. J. S. Fernald.

Committee on Publication—Drs. E. K. Webster, E. Carter, C. P. Gage.

Committee of Arrangements—Drs. E. K. Webster, C. P. Gage, E. G. Moore.

Dr. Hubbard announced the death of Dr. Charles Bell, of Concord, and Drs. Hubbard, Stackpole and Brown were appointed a Committee to prepare resolutions.

Dr. P. A. Stackpole read an interesting dissertation on Inflammation, which was referred to the Committee on Publication.

Dr. Hubbard, from the Committee on the death of Dr. Charles Bell, reported the following resolutions, which were unanimously adopted:

Whereas, In the death of Dr. Charles Bell, late of Concord, the N. H. Medical Society has lost one of its most promising members, therefore—

Resolved, That we extend to his afflicted family our sincere and heartfelt sympathy in their affliction.

Resolved, That the Secretary be instructed to enter upon the records the above resolutions, and transmit a copy to the widow of the deceased.

The report of the Committee on Publication, by Dr. Webster, was accepted, and referred to the Committee of the Treasurer's Accounts.

Dr. Tenney, from the Committee on the Treasurer's Accounts, made a report, which was accepted.

With an interchange of sentiments on practical subjects, and familiar conversation for an hour or two, the session closed, hoping all to meet again in 1857.

PROGRESSIVE MEDICINE:

ITS RELATIONS TO SOCIETY, THE OTHER SCIENCES AND PROFESSIONS.

THE ANNUAL ADDRESS *before the N. H. Medical Society, June* 3, 1856, *by the President*, ADONIRAM SMALLEY, M. D., *of Lyme.*

Gentlemen:—Another year has winged its way into the past, and again we are assembled to testify to each other the strength of interest we feel in the New-Hampshire Medical Society. It is well that those who are interested in its advancement and well-being should meet together once in a year, to indicate, by their presence and counsels, a commendable zeal in its honor and prosperity; and to add anew their testimony to the wisdom and patriotism which guided its fathers and founders in their associated efforts for promoting the best interests and happiness of the community.

Sixty-six years ago much of the State was unreclaimed, and in many parts the woodman's axe had never broken that primeval silence which had reigned for so many centuries. A confederation of States had been formed, the great Magna Charta of American Freedom had been signed; and the veterans of the revolutionary struggle were settling down into that tranquility so congenial to domestic happiness. The medical necessities of

society were not to be forgotten by men who had dared and done so much for the amelioration and benefit of the human race. Our own profession had furnished a large share of the talent and ability to define and defend our rights in the councils of the State, the nation, and the field. The leading spirits of those days which "tried men's souls" were the fathers of this Society; and while we reap the benefits of their sagacity and love of country, may their names and their virtues live and be honored, and the profession they loved be largely advanced. Can we spend the few moments allotted us better than in taking a survey of our broad professional inheritance, its history and progress, and its relations to other professions and society at large? It would afford me unalloyed gratification could I invite you to accompany me through paths of pleasure, bedecked and strewed with flowers whose fragrance would yield a sweet incense; but the flowers that grow and flourish in our pathway are the night-shade and the poppy. Would that we might ramble through beautiful groves and over delightful landscapes, such as the imagination of the painter can sketch, and find shelter under their luxuriant foliage from the sunshine and showers, and listen to the sweet songs of the plumy races, or be soothed by the murmur of the distant waterfall; but ours is a science whose rugged steeps are too closely allied to every day facts; and we are too often brought in close proximity to the shady side of poor humanity to be able to revel in pleasure or forget for a moment the sad realities we are so often called to witness. In the early history of our Society there was an attempt at legal protection, but for many years neither society nor the profession have been retarded with any such hindrances. While government is careful to protect the people from their own ignorance and the impositions of the fraudulent, by penal statute and the strong arm of law, it utterly refuses to sustain those who judge for that same people in all that relates to the deep mysteries of life and disease; it has no reproofs, no penalty, for the counterfeit physician, who cheats us of our health, and life, even. It is very careful to provide, by stringent and penal laws, that none but the authorized agent shall dispense the alcoholic stimulants, while it looks on with impunity, and often with approval, and allows the patent medicine

vender to dispense the most worthless and most poisonous drugs indiscriminately among community, provided it be certified by some Rev. gentleman, and labeled patent medicine. Whoever chooses to assume the title of Doctor, though just from the workshop or field, is permitted and encouraged to practice his arts upon the credulous; or any individual, however ignorant, who offers his services to the public as a practitioner, is forthwith invested with all the privileges and immunities of the educated and honorable physician. The necessary consequence is, the intelligent and trustworthy physician, as well as the ignorant and unqualified bone-setter, the Hydropath, the Homœopath, the Thompsonian, and all other medical heretics of whatever faith, are confounded under the same designation, and medicine, as a science, is held responsible for doctrines and practices which she repudiates and abhors. Common justice would accord to her the right to exclude from her honors those at least who wear her livery without acknowledging her authority, and to claim of the State government some mode of distinguishing the Doctor in Medicine from the mere pretender and charlatan. In one of the New-England States, within a year or two, a law has been passed making it imperative that a man must be able to read and write before he can be admitted to the rights of franchise. Would not the wise Solons who make our laws show full as much love for the dear people should they require as much of those who claim to deal with the mysteries of health and disease? Yet any attempt at legal restraint upon their system of imposition awakens the cry of persecution, and theirs receives the sympathy of the martyr's fate. Quackery lives by notoriety, and, like the cancer, is inflamed and grows by injudicious attempts to repress or destroy it. The progress of true medical science can not be impelled or stayed by the vulgar opinions of the ignorant and uninformed. It is in this age steadily and rapidly progressive. "Like every other branch of science, ours has its lights and shadows, nor are there wanting characters to bring out in strong relief the drama of medicine, both tragic and comic. One is occupied in subtracting from the sum total of things, so as to arrive at the smallest possible remainder, which he imagines accomplished by the magic of infinite divisibility, and then applies the remainder

to the cure of all human diseases, in demonstration of a great principle, that through the mystery of Homœopathic shakes, a part is more potent than the whole, however guided by the golden rule, *similis similibus curantur*. Others are intent on playing a comedy in medicine to cheat their patients into health by amusing the imagination to beguile them of disease, and, in imitation of the general caleclysm set forth in the prologue, nature's simplest beverage, and fill up the different acts and changes of the drama by different degrees of dilution and the various modes of ablution as may best suit the fancies of the audience. Others again attempt to portray the very type of simplicity in medicine, and, with those who adore the great luminary of day, they hold that heat is life and cold is death, and by such processes as approximate nearest to ignition, they combat the great destroyer with steam and lobelia. In other quarters we meet with those, who, by an indefinite process under the inspiration of the magnetic aura of some skillful somnambulist, by a simple volition shake off all the labors and trammels of observation, experiment and reason; and overstepping, by the intuition of clairvoyance, apprehend at a glance the anatomy and pathology of disease, however distant or concealed, and with equal directness and facility prescribe the proper and precise specific."

These are some of the absurdities of the age; an age prolific in error as well as truth; making the advancement of medical science dependent on those who assume to dispense its benefits on the human race; showing with equal clearness that charlatanry has not improved upom the charms, amulets, and incantations of the dark ages. That the science of medicine is progressive in its nature and demands, none can deny; and that the spirit of harmony and wisdom, of zeal for the dignity, honor and advancement of the interests of the profession, are equally necessary, all will admit. If we may be allowed to judge of the incipient conception of the healing art, we shall no doubt find that it was not for the alleviation of human suffering, nor for the removal of deranged function that first prompted the mind of man to seek in the world around him an antidote for the calamity which had just befallen his fellow-man. Abel had just fallen a victim to the malevolent passion of the fallen race. The problem to be solved was not

what would cure the maladies or restore the morbid organic function, but what would bring back to life the cold and stiffened form. Finding no human wisdom or skill competent to a work so great, and settling down in hopeless bereavement and poignant grief, no wonder the ingenuity of man should have been taxed to its utmost limit to find a preventive panacea for so sad a catastrophe. To what extent of progress the researches in the healing art were carried in the first few centuries after this sad beginning, that darkness which holds all but revealed truth in its ample folds can only disclose. No revealing angel, no marble inscription or chronological coins, no visible monuments or oral traditions are found to tell us of the state of the science at that time. We read in the Bible that "when Jacob died, Joseph commanded his servants the physicians to embalm him, and the physicians embalmed Israel, and forty days were fulfilled for him, for so are fulfilled the days of those that are embalmed."

Thus it appears that 1700 years before the Christian era, Egypt possessed men who were acquainted with anatomy, and who practiced the art of medicine. This passage in the writings of Moses is the most ancient authentic monument that we possess of the healing art. The writings of Moses constitute a precious monument for the history of medicine; they embrace many hygienic rules of the highest sagacity, and which may be regarded as a detached fragment of Egyptian science. It is in Leviticus that the prophet legislator has recapitulated the greater part of the rules concerning the care to be given to the health. Apart from the religious ceremonies, might it not be said that these are the principles from some modern work on hygienics? Who can read the description of leprosy given by Moses, its prevention and treatment, without admiring their wisdom and forethought? It is said that the science of medicine is founded on the study of man's moral and physical nature in health and disease; the offspring of instinct, observation and reflection. It has struggled at all times, and in all countries, and continues to struggle with favorite theories. It has been influenced by almost all systems of philosophy and religion; by truth and the most absurd superstition; and with that tardy slowness which marks all the important advancements of mankind, but lately emerged

from some of the prejudices which have hung over it for thousands of years. Like the other sciences, medicine has gained more from the discoveries of close observers than from centuries of theories. This may emphatically be said to be an excited and stirring age in which we live. Not so much advancement is made in law, theology and politics, or metaphysics, as in mechanics, chemical and the physical sciences, of which ours forms an important part. Man seems to be struggling to regain what he possessed before the fall, when God said, "have dominion" over animate and inanimate matter. We see this in his control of the electrical element, which enables him to imitate, to a certain extent, the ubiquity of his Creator; in employing the winds to urge on his freighted ship; in the ocean steamer, which drives her prow in the teeth of the powerful gale, and splits down the mountain wave raised to obstruct her passage; in the tunneled mountain, whose granite sides dispute the passage of his locomotive. It is the boast of the present age, that every new discovery, no matter how abstract apparently in its nature, soon receives some practical application. Thus metals, deposited by galvanic influence, accurately represent, in relief, the slightest scratch upon the surface they have been applied to; and in a short time electrotyping became familiar to every school-boy. It is no sooner known that light favors crystalization, than the daguerreotype becomes the chief portrait painter. The influence of light in promoting the action of the salts of silver on organic matter is no sooner known than ingenuity is exhausted to obtain photographic landscapes. The xyloidine of Pelouse soon becomes the gun cotton of Schonbein, and this agent of destruction is rapidly changed by the unquiet spirit of experiment, into a powerful styptic and an invaluable cuticle. The vats of the soap boiler are found to be corroded; the principle which produced this effect is detected in the burned sponge, long known as a specific in goiter, and the popular remedy for scrofula is at once recognized. Ether and chloroform are extensively used to wrap the senses in forgetfulness during operations, and many nervous diseases the most painful. It was known that metallic salts decompose hydro sulphuret of amonia, and that the latter compound constitutes the most unpleasant portion of the affluvia from decomposing animal

matter. The practical application of these facts is being extensively tried, and nitrate of lead, chloride of zinc and sulphate of iron, vie with each other in deodorizing nauseous emanations. The inspissated milk from an Indian tree is observed to acquire plasticity when heated, and to become inelastic and tenacious when cold, and in a wonderfully short period the practical applications of gutta percha have become innumerable.

The few hundred years in which men have begun to apply themselves more closely to actual observation and the study of Anatomy, Physiology, Chemistry and Pathology, medicine, like all the other sciences to which it is so nearly allied, has made rapid progress. The impiric rationalism of Hippocrates was the first step in wresting the knowledge of medicine from the Egyptian priests, and taking from the family of Esculapius the divine right of free investigation and action. It required the philosophic mind of Galen of Pergamos, and the fortitude of the Arabian Aoicenna to encounter, with any degree of success, the incantations and fooleries of barbers and monks. Notwithstanding the small beginning and the retrograde movements which this and all the sciences, and even letters received during that intellectual night and that mental, morbid sleep into which mankind were cast during the dark ages, medicine has been for many years, and still is a progressive science. "No revealing angel from an all powerful mind has been sent to confer on the chosen few the knowledge of the science, but man has, from necessity itself, been made to study his own diseases, his own constitution, and left to seek in the world around him the remedies for his multiplied ills. The system of Hippocrates, which assumed, with no small degree of truth, the mantle of science, in which it wrapped itself for nearly sixteen hundred years, was but little better than the mythology of his own time. Progress was reserved for more modern times. The spirit of investigation and inquiry which appeared with the revival of letters, and gradually advanced some of the physical sciences, was felt also in medicine, but seen only as we discern objects in the dim twilight. The realities which impressed the senses were strongly mingled with superstition, which forbad man to study his own physical and chemical development. Superstitious reverence for the dead body made it

a sealed book, which none might dare peruse under pain and penalty of the halter, or imprisonment. At length the seal of that sacred book was broken. May we not call it the book of life; life for the living, life to many who were ready to perish." There were but few at first who were disposed to peruse its wonderful contents. Neither Hippocrates nor his descendants ever dissected the human body; the religious respect that was had in all Greece for the dead, prevented it. A century and a half elapsed before Anatomy became an established science; when at length it rose from the slumbers, darkness and superstition which had obscured it for so many centuries — when the circulation of the blood had been established by Harvey, and through the labors and investigations of now and then an inquiring mind, some few facts came to be known of the nature of diseases. At length a beam of light fell on our profession; then wrote such men as Hunter and Haller, who approached known facts in the spirit of philosophy, and felt the need of new ones to solve a thousand doubtful questions. They sought them with that scrutiny and simplicity of purpose which merits and will secure success. There came a time when the art was no longer taught in an occult, hidden manner, when the chain of superstition; which had held all in its iron grasp so long, was broken, and when its practice was accessible to every citizen. That revolution first took place in Greece, about the fifth century, before the Christian era, and after the dispersion of the Pythegoreans. From Greece this revolution was extended into Asia and Egypt; it penetrated Rome about the time of the second Punic war, but made little progress there until a later period. Until that time medicine had been practiced under the patriarchal form. Thus the torch of civilization which had anciently shone upon the banks of the Nile with a mysterious and isolated light, returned, after being increased and vivified at the free fires of the genius of Greece, to shed an eclat more resplendent than ever on its early cradle, and the city of the Ptolomies became a scientific focus, whose light was shed for ten centuries upon the antique universe. The Alexandrian school eclipsed, from its origin, (320 years before Christ,) those of Cos and Pergamos, and no doubt its success was attributable to the authorization accorded by the found-

ers of that establishment for the dissections of the human body. That authorization, merely unique in antiquity, gave to the Anatomical, Physiological and Surgical sciences an extraordinary impulse. The princes did not content themselves with delivering over to the scalpel of the Anatomist the bodies of criminals; they participated sometimes, it is said, in the labors of dissection, so anxious were they to penetrate the secrets of nature and life, and to destroy, by force of example, the odium to which the physicians exposed themselves by their anatomical research. The Ptolomies also favored the progress of natural history and materia medica by collections of rare animals and plants that were made for their museum near their palace. But of all the scourges which obliterated the progress of medical science in Egypt, that of the Roman domination was the most fatal. That royal people who delighted to see blood flow, not only on the battle-field but also in their diversions and daily exhibitions, regarded as a profanation the contact of a dead body; so that not a single anatomist of any reputation had his origin in Rome. Freedom of opinion has done much in breaking the fetters of authority and in advancing the progress of medical science. Now the profession are allowed to read nature without an interpreter, each one for himself, and many of the errors of the past are reformed and medicine raised to a high rank among the sciences. The men of other days are entitled to our regard and esteem, that with their scanty facilities and the obscurity which rested on all the sciences, they were able to advance that of medicine, surrounded as it was with so much fiction and error, and have transmitted to us so many important historical facts. We read the works of Hypocrates and Galen with feelings allied to those inspired by visiting the architectural ruins of their once proud countries. We admire the bold span of the broken arch, and the symmetry of the fallen column; we enjoy for a time the solemn stillness of the solitude, and love the lofty associations that linger there; but if we require shelter, we are obliged to seek it from some modern edifice, constructed, in part, from materials taken from those prostrate walls.

The advancement of medical science depends much on the improvements of the collateral sciences of Chemistry and Mechanics,

still man is not a mere chemical creation. Although concealed in his nature, we already know the living force is capable of subduing the actions of chemical attraction, and bestowing on the molecules of bodies orders of combination altogether peculiar to itself; yet it is wonderful how many of the facts of this department of science are illustrated in the functions of the body; how many of its laws are made subservient to the life and comfort of man. He is not chemical in the sense of vegetable or mineral chemistry, nor is he simply a bound volume of mechanical laws, and yet there are few principles of mechanics that have not been applied to his construction. Light, heat and electricity, in certain important manifestations, have been subjected to the dominions of life; thus, a man, a microscopic animalcule, the towering cedar and the humble cryptogome, are subjected to the same influences. There are no royal houses in nature, where beings repose, or seek repose after labor. They all participate in the ceaseless struggle and persevere in the continual excitement. These physical laws expound to us the nature and teach us the progress of many dangerous diseases. Physiology depends on Chemistry and the microscope. Chemistry and Botany are the principal sources of our remedial agents. Surgery borrows largely from mechanics and the arts. These are some of the points of dependence of the vital science on the physical. The phenomena of the body are more complex than those of inorganic matter, and many of them are only made intelligible when the physical element is studied, apart from the vital. The durability of these special forces, which impel us through the space of life allotted, varies extremely. But there is a limit they can not pass, and there are certain inscrutable laws, but little understood.

How fruitless were all attempts to comprehend the functions of respiration and the laws of animal heat, till the properties of oxygen and the relations of that substance to common air, were first ascertained; showing that medical science must go hand in hand with the relative sciences; both feeling an equal impulse, and both fulfilling their errand of mercy to suffering humanity. And now, it may be asked, what have these combined agencies accomplished? What good results from this ceaseless struggle for

advancement? Without attempting a full portrait, I shall endeavor to sketch a few features which may be characteristic of the progress of the science of medicine; and would refer to the ruins of many fallacious theories; to the rock-based foundation of modern medicine, laid by Harvey, in the discovery of the circulation of the blood; to that of the absorbent system, by Bertha-line; to that of the structure and functions of the lungs, by Melpighi; to that of the properties of the living fiber, and of many of the important functions of the muscular and nervous systems, by the illustrious Haller: — discoveries which followed each other in rapid succession. We can also refer to the immortal discovery of Jenner, by which one of the most loathsome diseases has been well nigh banished from civilized life; to the science of anatomy matured; to the extensive acquisitions of pathological anatomy, showing how it has taught us diseases never before suspected, and by teaching us, at the same time, their natures, has taught us the indications of cure; how it has taught us to cure diseases hitherto regarded as incurable; how it has taught us to alleviate or delay the issue, when we can not cure. We can point to materia medica, greatly extended by frequent and rich tributes, claimed in its behalf by chemistry and botany, from the earth and the sea. To physiology, renovated by the aid of chemistry and the microscope; to orthopedic surgery, with its new inventions to torture the limbs of men into becoming straightness; to the ready zeal by which the plastic art strives to correct the errors of nature, by patching defects in front of the garment, with clippings from the skirts; to the numerous maimed mementos of a negotiation daily made with death; bribing him to surrender the larger part of his victim by surrendering to him the smaller; and all under the influence of an anasthesia, so that the surgeon's knife has no sting, and an amputation is alike, to the patient and surgeon, a mere pastime, and enables the patient to say, "they have stricken me, and I was not sick; they have beaten me, and I felt it not." We can also refer to the valuable labors of Laenna, in auscultation and percussion; to the lunatic, freed from chains and close jacket, and raised from his dungeon to be restored to some of the sympathies of life, and to the fact that the advancement of the

science of medicine has materially lengthened human life. Macauly, in his History of England, says, "The term of human life has been lengthened in the whole kingdom, and especially in the towns." In the year 1685, not accounted a sickly year, more than one in twenty of the inhabitants of the capital died; while at present only one in forty dies annually. The difference between London in the nineteenth century and London in the seventeenth century, is greater than the difference between London in ordinary years and London in the cholera. Dr. Simpson, in his paper on the statistics of surgery, states that in 1786, the yearly rate of mortality, in the whole of England and Wales, was one in forty-two, while in 1801 it was one in forty-eight, and in 1831 it had diminished to one in fifty-eight; showing a reduction of annual deaths by 28 per cent in the short period of half a century. The reports of the Parisian hospitals show, that while in 1805, one died in seven who were admitted, now only one dies in twelve; thus showing that our science has increased in its ability to save life, in the same order of diseases, and in the same buildings, 71 per cent in a period of fifty years. In other wards of the Paris hospitals, where formerly fourteen died in each hundred admitted, now only eight die, a saving of six persons in a hundred. There are 80,000 patients annually admitted into these hospitals, showing, in the aggregate, a saving of five hundred human beings. And this is not all: the period of their stay is very much lessened. The average time of residence was formerly thirty-nine days, now it is twenty-four days; a difference of fifteen days to each inmate, or to the 80,000 a saving of 1,200,000, since 1805. In the treatment of special diseases the most remarkable evidences of improvement are shown. Thus, in syphilis, in 1805, one died in fifty-six cases; in 1850, only one died in two hundred and ninety-four. In surgical practice the saving of life at present exceeds, by more than thirty-five per cent, the results at the beginning of this century.

In France, according to Dupin, the duration of life has been increasing equal to fifty-two days in each year, from 1776 to 1842; or nine and a half years for the whole period. The increase per annum was at no time less than nineteen days; although that revolutionary and warlike people shed seas of blood,

not only in her cities, but upon every battle-field in Europe. In midwifery practice, one hundred and fifty years ago, according to Dr. Merriman, one in forty died. At the close of his tables, in 1828, only one in one hundred and seven died; and at this time it is estimated that not one in two hundred and fifty die. Robert Collins, during his mastership in the Dublin Laying-in Hospital, of seven years, ending in 1833, had 10,785 patients delivered, and only 58 died; or one in one hundred and eighty-six.

The hospital practice of our own country exhibits the same gratifying success in treatment. In the annual report (to the legislature,) of the New-York city hospital, which was founded in 1842, it is found there has been a progressive improvement in the saving of human life. The relations of deaths to admissions, in the first fifteen years, was one in seven and seven ninths, while in the last five years it was only one eleventh and one eighth; thus making a gain of thirty-one in each hundred. In this important result vaccination has had nothing to do; as small-pox has never been admitted there since its foundation. What else have we in these facts than improvement in the practice of medicine and surgery? showing, most conclusively, that however great the amount of good from the discovery of vaccination, it is far from being the only life-saving agency with which the world has been blest in the last seventy years. The same favorable results are obtained in all the hospitals in this country, or nearly so. Mr. Milne, in making up his well-known Carlisle life-tables, ascertained with the greatest care the deaths in that town and vicinity for the nine years following 1778; they were in the proportion of one to $39\frac{99}{100}$ of the population, each year. It is ascertained, with certainty, that for the seven years ending with 1844, the deaths in that same town and vicinity were one in $52\frac{6}{10}$; thus showing a decrease of mortality, in fifty years, of twenty-two per cent. The deaths in the town of Northampton were carefully studied during the latter part of the last century, and compared with the population. Here we have another illustration of the increase of human life. The Registrar General, in his report for 1847, says of this town: "In the last century the people here lived about thirty years; now they live $37\frac{1}{2}$ years." In earlier times their life must have been shorter.

Then the community had no skillful physicians or surgeons; no infirmaries or lunatic asylums. In the lapse of half a century twenty-eight persons are saved alive out of every hundred, all of whom must have previously perished.

Who, after examining facts like these, will say that medicine is uncertain, and that those who dispense its benefits are unworthy the confidence of an enlightened and intelligent people? Well may the inquiry arise, If the greatest limit to human life has been attained? Can the life of man be still farther prolonged? What are all the other improvements compared with this? What is the relative value of the locomotive, the steamboat, or even the magnetic telegraph, or what all the improvements in the labor-saving machines of the present age, compared to this saving of human life? And yet, how often do we hear the taunts of interested or ignorant pretenders, that medicine is uncertain because of the variety of opinions and theories of those who cultivate it; still excepting mathematics and the pursuits resting strictly upon it. No pursuit of man surpasses or equals medicine in the certainty of its opinions, and in its positive and increasing blessings upon society. No one will pretend that medicine, as a science, is perfect; were it so, there would be no progress; on the contrary, none feel its defects more keenly than medical men; and none are striving more perseveringly to advance its interests and to elevate its standard.

Many eminent minds in our profession are steadily at work, endeavoring to build up medicine, like other branches of natural science, by the careful study of facts, and we have the consolation that a bright and steady improvement is in progress. One, among other causes, in operation for the advancement of medical science, is seen in the spirit for associated effort and intercourse among the profession. It is but nine years since the New-York Medical Society gave an invitation for a national medical convention; which was responded to by about one hundred delegates from nineteen of the thirty-one States of this confederacy. Many and great as were the difficulties incident to the movement, they were boldly met, and that convention "*Resolved*, That it is expedient for the medical profession of the United States to institute a national medical association, for the protection of the

interests, for the maintenance of the honor and respectability, for the advancement of their knowledge, and the extension of their usefulness." Thus many thousands of our profession have become members; and their "transactions" are annually adding some thousand pages of interesting scientific material to the fund of medical knowledge. State societies have been organized where none existed before. County and district societies have largely increased, and the standard of medical education has been elevated. But independently of the influence of these associations upon the scientific relations and ethical observances of the profession they can not be sufficiently valued in their effects upon its social character. By them, medical men are brought together from different parts of the State or nation—made known to each other—made to respect and esteem each other—lasting and warm friendships are engendered, and the whole profession knit into a band of brotherhood, which can not be without a most happy influence upon its comfort, honor and prosperity; and may we not look forward to the consequences of these movements with the deepest interest, and the firmest confidence that every past step that has been gained will be maintained, and an impetus given to the onward progress of medical reform, which will never cease until the perfect consummation of its labors shall have rendered unnecessary the continuance of its action.

If we examine the other professions, we may find full as many absurdities, and as much uncertainty and want of uniformity of opinion, as in our own. In theology, the controversies of the present age and the growing inclination of the clerical profession to apply the cap of liberty, doff their divinity and enter the political, are, to say the least, strong indications "of a departure from the faith once delivered to the saints." When was a political resolution, however specious in its character and tendencies, introduced or discussed in an association of medical men? and when has there been an association of the clergy in which something of the kind has not been introduced and discussed with that warmth, and even bitterness, which is so characteristic of the mere demagogue, whose *kingdom* is of *this* world? In law, what progress or advancement has been made since Erskine or

Blackstone? The law is said to be the perfection of human reason; but if medicine is proverbially uncertain, what may not be said of the law? Its doctrines are written; its decisions are voluminous; yet the whole science may be narrowed down to a question of right and wrong; in which the whole moral faculties of man instinctively lead to right decisions. In nothing have men a more intuitive knowledge than in law. It may be argued that legal decisions are uncertain, from uncertain and conflicting evidence; but its uncertainty is as often in interpretations of organic as common law. The opinions and decisions of legal men are given with great deliberation, and with ample opportunity for research; while members of our profession are expected to be ready, at a moment's warning, to decide the most momentous questions, and often, under the most difficult circumstances; and I have no hesitation in believing that the opinions of medical men, thus given on the spur of the moment, are characterized by as much certainty as those of the legal profession.

If we compare medicine with political economy, we find the comparison in favor of the former. Our statesmen disagree in their views on the difficult subject of this branch of science. Domestic manufacturing, tariffs, banks of issue, internal improvements, educational systems, the rights of citizens and States, the powers of the general government, are all subjects of disagreement among the political doctors, and less certain than medicine. No class of men, not even the clerical profession, has exerted itself more disinterestedly and benevolently for the welfare of mankind than some of our profession. At home and abroad we find the severest toil, the most dangerous duties, undergone with an alacrity and cheerfulness which can only result from a deep inherent sense of the claims of suffering humanity upon medical skill; and beside those whose duties carry them to the remotest parts of that empire on which the sun never sits, numerous individual members of our body have been enlisted in the service of Christian missions; and Asia, from the coasts of Syria to the rivers of China, has felt the presence of physicians who carry succor for the souls of men in their right hand, and in their left, help for their ailing bodies. Of the true physician, it is the high and honorable boast that with him science is merely the neces-

sary means to an important end; that all his knowledge is eminently practical and its great purpose benevolent. It is his province to assuage human suffering in all its varieties and forms; and, when the priest and Levite pass by on the other side, to cleanse and heal the wounds of suffering humanity. When, however, he passes the boundaries of civilization, his labors become far more valuable, and far more effective. In highly civilized nations or communities, medical science has interpenetrated the social condition of the people, and much of the prophylactic and practical knowledge of the profession is in daily application, without the assistance of individual practitioners. But if we turn our eyes to half civilized nations, or to barbarous tribes, and mark the treatment of the sick and the ravages of disease among them, the glory of the medical profession, its power to save from misery and death, stands forth in brilliant clearness. Who can read the story of Dr. Grant among the mountain Nestorians of Persia, armed only with his needle for the removal of cataract; forcing mountain passes, and amid savage men and ferocious warriors, winning his way to their hearts and homes by the gentleness of his manners and his readiness to alleviate their suffering bodies, and not feel his heart swell with grateful pride, that this man was our professional brother; and that this is but a single instance among many, in which the members of our profession have exhibited, not only the best instincts of their nature, but the principles of that religion which the great Physician came into this world to establish.

Having thus attempted to show what medicine has done, together with some of the means by which it has accomplished so much, and the incentives to farther progress, may we not reasonably ask, is it not a subject in which every citizen has a deep, a *vital* interest? When we come to consider the human frame, the most wonderful production, the divine idea of mechanism, in whose structure a thousand wonderful and complicated actions are in play, many of whose laws, after more than two thousand years of investigation, are still unknown, why do our governments surrender this precious and priceless casket to be prostituted to the mercenary practices of ignorant quacks. In all associations of men, in all the relations of civilized life, upright-

ness and magnanimity of conduct expects and receives approbation as no small part of its reward. Is society, then, just to itself and its best interests, when it leaves the great work of the profession to go on without its commendation, without its encouragement, or its notice? Who disarms pestilence of its power, and gives health to the sick? Who follow in the battle-field, through the thickest of the danger, not that they may aid destruction in her work, but that they may soothe and heal the wounds she makes? Let society exalt and cherish its medical men; let it feel that if science can not aid in its struggle with disease, ignorance and quackery will be less likely to accomplish any good. Progress has been made in the profession, and go on it will, and no neglect or contumely can stay its movements. There is a commendable thirst for learning in him who has assumed the high and responsible duties of a conscientious physician. There is a spirit in the profession which has risen and will continue to rise above neglect, ridicule, or detraction. Yet, permit me to ask again, is society just to itself when it leaves to the unencouraged labors of a body of men, in a great degree isolated, interests in which every man has so great a stake. Allow me to step aside for an illustrative contrast. All will remember the bursts of applause, and the public demonstrations and pageants which followed the receipt of the news of the military victories and successes gained by the American arms in Mexico. Scott, Taylor and their officers and men were praised and extolled for their daring and bravery; and when the bodies of the officers who had fallen on the field of battle were returned to their friends, the towns and cities through which they were carried vied with each other in efforts to honor the deeds and glory of the illustrious dead. The citizen soldiery were mustered to render military honor, which had been decreed to the brave who had fallen in the land of the stranger. The procession, with saddened hearts, marched slow to the solemn music, while they read on the black drapery of the coffin the name of the fallen and lamented hero; thus proclaiming that the soldier shall be honored in his death; and that a nation's gratitude shall thus honorably be bestowed on all who, with brave hearts and strong arms repel and subdue the common enemy. That same year, another little body

of soldiers might have been seen in our commercial cities, making defensive war against an invading enemy whose insidious attacks were covert and unseen. One after another of that little band sunk, mortally wounded, on *their* field of battle; and when at length they were gathered to their graves, glory awoke no peans for them. The public heart, cold as the earth which received their mortal remains, felt no pang for them; and aside from the desolated family circle, and out of the profession which cherishes their memories, who was there to mourn their untimely end? Yet these were the men who stood between the living and the dead, and these were the costly sacrifices by which the ship fever pestilence was stayed.

Less than a year ago there came across the water, from the Crimea, shouts of victory and applause, which gladdened the hearts of all the western powers of Europe. The homage and adorations bestowed on Pellissier and Simpson, for their daring and bravery in the assault and capture of the Malakhoff and the Redan, made an echo even on this side the Atlantic. Col. Windham was promoted to a Major Generalship for his wonderful daring displayed in planting the English colors on the former redoubt; while Simpson had conferred on him the Grand Cross of the Bath. About the same time the yellow fever commenced its destructive and fearful ravages in Norfolk and Portsmouth, Va., and terror and dismay sat on every countenance. When the merchant, the lawyer, and in some instances, the spiritual advisers of those death-doomed cities were seeking some safe retreat from its desolating touch, who but physicians stood with calm composure, and measured arms with the fell monster, in attempting to snatch their fellow-men from his relentless grasp? And when, as Dr. Bryant, an eye witness, describes it, "the pestilence swept through the streets like a tempest, sparing none, and slaying three in every five. The panic was now complete. The fell destroyer could not be arrested by barricades or hygienic measures; it held high revelry over its fallen and prostrate victim. All who could, fled. But vain expedient! they carried the seeds of pestilence within them, and many fell by the way. The ties of blood were sundered; bands of alliance were as if they had not been; friend shuddered and shrunk from friend; the sick and the dying lay in

hopeless despair, with none to moisten their parched lips, or administer a soothing draught; while burial for the dead was with difficulty obtained." This, he says, "is no fancy sketch, it falls far short of the truth. The population of the flourishing, and heretofore healthy town of Portsmouth, was reduced, by flight and death, from eleven to four thousand, and that of Norfolk from sixteen to five thousand. Except a few brave hearts, which nothing could appal, all who were not forced by sickness or other necessities, had now fled. The stores were closed, not even excepting the drug shops; their owners had either fallen or fled. The markets were unattended, none being willing to approach the city to supply its wants. And had it not been for the benevolence of other cities, gaunt famine must have added its horrors to that of pestilence. Of the resident physicians only four survived. Over forty died, but none fled." When the cry came abroad from those pestilential cities for succor, whose heart responded to the call with more ready zeal and alacrity than that of the medical profession. As their ranks were thinned and the terror increased, there was no lack of clear-headed and warm-hearted Samaritans to combat the dread foe; and as one after another of that gallant band fell, mortally wounded, others were ready to march to the rescue, and the medical column was kept entire while the scourge-battle lasted. Though the citizens of these cities may not find words to express their gratitude, they can thank God that their lot is cast where Christian charities grow and flourish; and they will invoke his best blessings on those who remembered them in the day of his visitation. Yet what meed or applause have the public bestowed on our profession, or the members of it, who so nobly took their lives in their hands and sought to alleviate, amid the death-damps and pestilential effluvia of those doomed cities, their suffering fellow-men? We ask not applause, we ask no higher boon than an approving conscience, and the cheering sentence, "Inasmuch as ye have done it to one of the least of these my brethren, ye have done it unto me."

RESULTS

Of the Quantitative and Qualitative Analysis of Homœopathic Medical Preparations, by EDWARD H. PARKER, M. D., *of New-York City.*

DURING the last two years my attention has been repeatedly called to the drugs used by gentlemen professing to practice medicine "homœopathically." In consequence of my observations I determined, as opportunity offered, to obtain specimens of the remedies actually used by these practitioners, and sold by various pharmaceutists, and to submit them to an experienced chemist for analysis. This has been done in three instances with the following results:

The first analysis was made of the contents of two vials, marked respectively *Mercurius Solubilis*, and *Arsenicum*. This is their history.

A gentleman with whom I had become acquainted in some business connections, often talked to me of his health, and of the treatment to which he was subjected by a prominent homœopath of this city. Among other powders, he showed me some which he was taking, and which I was sure contained a notable quantity of nitrate of silver. He also praised the treatment to which his child was submitted when it had a diarrhœa from teething, or other cause. A gray powder and a white one were given alternately, and the child liked to take them. His wife kept them constantly by her, and if the child had a discharge from the bowels which she thought was a little too loose, she would give her a few doses of these powders. She thought, however, that the blackish powder (*merc. solub.*) did the most good. My friend constantly urged me to try them, for, I think that because I did not rail at homœopathy, but spoke of its

practitioners as I would of other gentlemen, he had some hopes of converting me to his faith, than which I can conceive of no more preposterous supposition. Finally, I requested him to procure for me some of the same powders he was using for his child. This he did, and I placed them in the hands of Dr. Arthur Du Berceau, of this city, who is a skillful analytical chemist. This is his report:

One hundred parts of the white powder, marked *Arsenicum Alb.*, contains 1.112 of *Arsenious Acid.* The remainder is *cane* sugar. The second, marked *Solubilis Mercury*, contains in one hundred parts 11.00 of *Metallic Mercury.* The remainder is *cane* sugar. The mercury was in the condition of black oxyd, obtained by the reäction of proto-nitrate of mercury and ammonia.

The mother, when told of the amount of mercury and arsenic which she had been giving to the child, was horrified, and has since used them less indiscriminately.

At my request the same friend purchased for me a case of medicines of a homœopathic druggist. It is like those which he ordinarily sells for family use. This I also placed in the hands of Dr. Du Berceau, and he obtained the following results:

In the bottle marked Calc. Carb., 100 parts of powder contain 1.066 Carbonate of Lime.

In the bottle marked Carb. Vegetabilis, 100 parts of powder contain 0.500 fine Charcoal.

In the bottle marked Arsen. Alb., 100 parts of powder contain 1.120 Arsenious Acid.

In the bottle marked Mercur. Solub., 100 parts of powder contain 1.350 Metallic Mercury.

In the bottle marked Hepar. Sulph., 100 parts of powder contain 0.900 Sulphur.

In the bottle marked Stibium, 100 parts of powder contain 0.500 Oxyd of Antimony.

In the bottle marked Sulphur, 100 parts solution contain 0.100 Sulphur.

In the bottle marked Phosphorus, 100 parts solution contain 0.430 Phosphorus.

The fluid contents of the vials in the case, with the exception of the last two in the preceding list, were not examined, partly

because I wished to preserve them to satisfy the minds of those who might desire to see for themselves; and partly because it is so difficult to do any thing more than to ascertain the quantity of solid matter which remains after evaporation of the menstruum. The qualitative analysis of organic substances is well known to be one of the most difficult and uncertain of the operations of the chemist. The sugar in these powders was that obtained from milk.

It will be observed, that in this instance the arsenic and soluble mercury are the strongest preparations, though the latter does not compare in its amount of metallic mercury with the proportion found in the first analysis. These two remedies seem to be great favorites with homœopaths, being frequently prescribed by them. Why this is we now understand.

About the same time I obtained a set of preparations which had been used by a physician who determined to try his hand at homœopathy, and took advantage of the position which he occupied in one of the dispensaries of New-York to make his experiments. After his resignation, the preparations which he had been using were left in the hands of the apothecary of the institution, and some of them were selected by me for analysis. They were purchased at a different shop from those which were before analyzed, and the direction given was, that when about two thirds of the vial in any bottle (they were all solutions,) were used, the vial should be filled up with proof spirits. This will, perhaps, account for some of the variations in the strength of the preparations. It was found that there was of—

Tincture of Silica, in 100 parts 0.025 of Silica.

Tincture of Hepar. Sulph., in 100 parts 0.050 of Hepar. Sulph.

Tincture of Baryta Carbonica, in 100 parts 1.450 of Carbonate of Baryta.

Tincture of Calc. Carbonica, in 100 parts 0.500 of Carb. of Lime.

Tincture of Arsenica, in 100 parts 0.025 of Arsenious Acid.

Tincture of Carb. Vegetabilis, in 100 parts 0.050 of Charcoal.

Tincture of Mercurius Solub., in 100 parts 0.100 of Solub. Mercury.

Tincture of Lachesis, in 100 parts 0.025 residue after evaporating the alchohol.

Tincture of Sepia, in 100 parts 0.025 residue after evaporating the alcohol.

Some of these preparations, as the Baryta Carbonica, contained a thick sediment which carried up the per centage. The other preparations which were left were vegetable, and were therefore excluded from the analysis.

These are all the analyses which I have yet caused to be made, but they are somewhat instructive. The first two preparations were obtained by the direction of a homœopathic practitioner, and one of them, the *merc. sol.*, is more than one tenth pure mercury, the proportion of the oxyd being consequently somewhat greater. The "arsenicum" contains 1.112 parts of arsenious acid, while the usual form in which arsenic is given, viz., Fowler's solution, contains one half a grain to each fluid drachm, the dose for an adult being about ten drops.

The second analysis was of drugs sold for "family use," and it is observable that the *arsenicum* is even richer in arsenious acid than the first. The *mercurius* has a much smaller portion of metallic mercury, and yet there is sufficient in it to produce all the effects of this metal when given in small doses. The tinctures accompanying the powders, are, so near as I can tell by the ordinary modes of examination, of as great if not greater strength than the corresponding preparations used by physicians. Though contained in small ounce vials, their color is marked—the Rhus Toxicodendron, for instance, being of a deep olive color, as is also the tincture of Dulcamara. Ipecacuana, aconite, arnica, cantharides, all give tinctures of decided color in these small vials. The aconite, indeed, I have used for patients, and find that it produces exactly the same results that ordinarily follow the use of the saturated tincture. Having occasion to use tincture of chamomile, I had some made by a druggist, and filled one of the vials with it. The color of the homœopathic preparation was quite as marked as the other. The tincture of *china*, which being translated means *cinchona*, is a good simple tincture of Peruvian bark.

The third set consists of much weaker preparations, and yet

here it is noticeable that, excepting the carbonate of lime and the carbonate of baryta, *merc. solub.* stands highest in its proportion.

If an average is made of the per centages of these three analyses we shall have this result: for the first 6.056, for the second .745, for the third .250. In contrast with these figures others may be put, showing the per centage of the drug which is left, in preparations made according to the directions of Hahnemann for potentizing medicines. The first dilution has in 100 parts 1 part of the drug. The second dilution has in 100 parts .01 part of the drug. The third has in every 100 parts .0001 part of the drug. Beyond this it is not necessary to go; though every one remembers how much stress was and still is laid upon high potentizations, those who use the thirtieth dilution being considered very moderate. The two hundredth is much preferred by some, and yet the weakest preparation of these three classes, obtained from direct sources, is stronger than the second dilution.

It may be asked how it is that such an abandonment of "potentization" should have occurred among homœopathists themselves, for these drugs came from their pharmaceutists, from the shops patronized by all the prominent men of that school in this city. The question can be answered only by referring to the positions which they now occupy. If these gentlemen are shown such proofs of the strength of their preparations as these analyses afford, or such as the very appearance of their tinctures gives, they will not for a moment deny that we are correct, or that there is any thing in this which is inconsistent with homœopathy. They will say they are *homœopathists*, but they are not *Hahnemannists*. O no! not they. How could one be so stupid as to make such a blunder. They believe in the doctrine, *similia similibus curantur*, but they do not find that potentization as taught by Hahnemann is borne out by experience. To be sure, this is no more than the whole medical profession has been saying ever since the absurd doctrine was propounded, and it is no more than common sense teaches; but if one suggests this to them, and congratulates them on their returning senses, he gets very little thanks for his trouble. The fact, however, of this entire

change of position should be more generally known and appreciated by the profession than it is, so that we may not waste time in assailing a position which has been entirely abandoned. It is safe to attribute any supposed effect of a decillionth of a grain of charcoal to imagination, but it is not quite safe to attribute to the same influence the effects of five drops of saturated tincture of aconite. Under these circumstances it might happen that a homœopath and a physician would both treat a patient in the same way, their only difference being in their process of reasoning. Both give quinine in intermittent fever; the homœopath because, as he alleges, it will produce in a healthy person similar symptoms; the physician for the reason that he knows it usually cures the disease; not, as is slanderously reported, because he believes it will produce symptoms unlike intermittent fever. He is no *allo*path. It did in fact happen to a friend of mine to be asked to see a patient who was under the care of a homœopath, not in consultation with him, but because he was desired to give his opinion whether or not it was safe to trust the patient still longer under the treatment. The disease was typhoid fever, and he found Spiritus Mindereri and all the usual remedies in ordinary doses, the patient doing very well. He could not but say to the attendant, "if this is homœopathy I am a homœopath." To be sure, the physician may write a prescription for *cinchona*, and the homœopath may write one for *china;* or the one for *hydrargyri oxidi nigri*, and the other for *merc. solub.;* one for *antimony*, and the other for *stibium*, but both mean the same thing, and the patient will receive the same drug.

It is a question of practical interest to the profession to ascertain what there is of good, if any, in homœopathy. Almost every "new school" enables us to gain some profitable suggestions, which repay the labor of sifting them out of a large mass of chaff. The Hahnemannists have tried experiments in the treatment of diseases with nothing which we should not have been justified in making, and they have thus taught us something of the natural history of disease. In their progress from infinitesimals to large doses, it has been necessary for them to conceal the change in their medicines, and therefore they have studied the art of giving medicines in the most agreeable, or in

the least offensive form, and in this respect we can learn something from homœopathy. The old school of practitioners, who, when called to a patient's house, seemed to make it their first duty to fill it with eight-ounce vials, have not entirely passed away, neither have their abominably tasting compounds entirely disappeared. Their big bottles, their table spoonful doses, their nauseous mixtures, have driven and still do drive family after family to homœopaths, simply because it is not human nature to desire to drink such a mixture as tincture of aloes and assafœtida with castor oil and turpentine in equal parts, a wine glass full at a time, if almost tasteless water or a sweet powder will accomplish the same good. To doctors, even, when they fall sick, an agreeable draught is preferable to one the very thought of which stirs them to their lowest depths.

It is not necessary to point out the mode in which concentrated tinctures can be made to supply the place of less powerful preparations. Neither is it necessary to do more than hint at the frequent desirableness of giving small doses often, rather than a single large draught. A few drops of aconite tincture, in water, is vastly pleasanter than even spiritus mindereri or sweet spirits of nitre. The dose of Norwood's veratrum viride is much pleasanter than infusion or even tincture of digitalis.

But the lesson is more important with reference to powders. For adults, solid substances can usually be given in pill form, but there is no necessity of rolling them in powdered aloes. To this day I can not rid myself of the remembrance of the disgust with which I used to swallow pills so coated, and with difficulty convince myself that the druggists now use only liquorice or more tasteless powders. Still, for these pills we need not select the most bulky drugs. The active principles of plants, when isolated, aid us in diminishing our pills, and will still more when their powers and properties are fully tested.

Children, however, do not readily swallow pills, and agreeable powders are often a great desideratum while treating them. A child's life may depend upon his taking remedies willingly and without compulsion. Thorough trituration of the drug with sugar seems to accomplish this best, especially if, when it is practicable, the doses are divided, but repeated oftener. The homœo-

pathic dispensatories direct that powders should be placed upon the tongue and allowed to dissolve, when they are to be washed down with a good draught of water. There is some philosophy in this, for the dissolving sugar first gives the impression to the nerves of taste, and the water washes down the balance almost untasted. In the minds of children, moreover, the first taste seems to be associated with the fact of taking the powder, while the second and more disagreeable one is not remembered against the dosing. To avail one's self of this fact, it is necessary that the sugar should be reduced to an impalpable powder; otherwise the end is not obtained. If, for instance, ordinary crushed or granulated sugar is used, it will be found that it is not an actual powder, but a mass of more or less complete crystals. On mixing a powder with these it either falls to the bottom, or, clinging to the crystals, coats them over. In this condition the sugar is less readily dissolved than when in powder, and in addition, each crystal is covered on its outside with the drug, which is first dissolved and gives its taste to the whole mass. Here, then, is the advantage, and the only one of the triturations recommended by Hahnemann.

REPORT OF THE COMMITTEE ON QUACKERY.

By Albert Smith, M. D., Peterborough, N. H.

At the annual meeting of the New-Hampshire Medical Society, June, 1855, it was

Resolved, That a Committee of three be appointed, who shall report at the next meeting of this Society, upon the subject of Quackery, and how far it is consistent for members of the medical profession to countenance empirics by meeting them in consultation.

Committee—Dr. A. Smith, G. B. Twitchell, N. Wight.

The Committee consider the subject of the resolution opportune, and deem it important that we should be aware of the exact condition of our profession, and of the alarming and dangerous progress which has been made in every species of quackery. If it is right to designate this as an age of advancement, of enlightenment, it is no less true, that it is an age of charlatanry; an age in which all pretensions, all shams, all braggardisms find a marvelous currency, and a ready adoption.

There is some element in the public training, that shuts the ears of the people to science and common sense, and opens them to hollow cant, unfounded boasting and wicked pretension, that is wrong in principle and dangerous to the welfare of the community. It is liberty carried to licentiousness. It is the total subversion of the conservative principle, that should always be our safeguard against innovation not sanctioned by strong presumption of usefulness. Nothing can be more painful to the philanthropist, than to see the proclivity of the age to quackery; to behold in every corner of our land such immense quantities of nostrums, and to know that these worthless compounds are designed to be administered at random, to be taken for real as well as fancied ills, as chance or officiousness may direct; and, still more so, to be aware of the great number of quacks, of every description, who prowl upon the community in every town, and feed, like vampires, upon the blood of the people. But this trifling with human life is one of the rights of the people, with which we can not interfere; they believe it is only the fear of danger to their craft, from this source, that induces physicians to say ought against it. And so strong an antagonistic feeling has arisen, that they regard the reliance upon nostrums and quack administration of medicine more valuable than any dependence upon a learned profession. The profession to them is "pearls before swine."

It becomes an important question, in offering this report, to determine what quackery is at the present day; and to see whether any of this odious quality still adheres to those who class themselves among the regular faculty of medicine. We often hear it said of many an accomplished and scientific physician, that he has too little quackery to succeed, *i. e.* he is too honest;

he scorns to practice deceit; he does not flatter the foolish whims and prejudices of the people, but looks at disease through the medium of science and common sense. It has been supposed that no medical man could be respected as a physician, without making pretensions he could never fulfill, and uttering boastful and exaggerated representations of what he has done, and is able to do. Is this so? Can the physician only sustain himself by resorting to the tricks, arts and manœuvers of the empiric? It is humiliating to think that the people are often actuated by every other sense than common sense, and seem to see as much merit in the most unblushing quack, as in the best physician; and yet, with all these apparent derelictions, we can not but think that the class is constantly increasing, who abhor every species of quackery in or out of the profession.

We believe that the straight-forward and honorable course is the best for the physician—he does not need any form of quackery to succeed, nor any submission to a vitiated and unenlightened public opinion—he requires only the necessary *tact*, by which he can only succeed in any business, and without which, he will fail in all.

It is a matter of regret, that many physicians think a little manœuvering and well practiced deceit very necessary to their reputations. We find some of this class always having severe and alarming cases of the most dangerous and rare diseases, and, on all occasions, patients just hanging over the brink of the grave, and yet all getting well, to their great honor and skill. These men seem to live in a medical atmosphere, always using the most recondite terms in medicine, and the most unusual and unintelligible names of disease, to show off their learning and extraordinary attainments; by which you could only infer that great skill must certainly inhere when there was such an amount of *occult* erudition.

It is no less reprehensible that many physicians of our times yield their assent to the erroneous and unintelligible doctrines of the humoral pathology, and thereby give continued currency to this great medical delusion of our fathers and of the age just past. It is thought to be dangerous to one's reputation to demur to this popular pathology, to scout at it as a figment of the brain, as a mere play upon words. It is very probable, if you

discard this popular delusion, that many self-conceited and self-complacent people, who know so much about medicine, (and who does not understand medicine?) will desert you for your heresy, and go where they can get such talk as they deem reasonable and agreeable to the universal belief of the community. Now the quack, who only sustains himself by sham doctrines, understands the people — he flatters them with his good opinion of their intelligence and acuteness — he adopts their pathology, and thus easily satisfies and stultifies his admiring and wondering patrons. They can not see why physicians may not explain disease with equal facility. It is distasteful to have them go into a scientific examination of their cases — the modern means of exploration of the chest, and other scientific methods of investigation are unmeaning and unsatisfactory to them — they prefer to have the Gordian knot cut at once, and to have the talismanic words of humors and impurity of the blood, solve every difficulty. They [illegible]out the idea of any labor in investigating disease; they believe that this knowledge comes by intuition. The great empiric needs only to look at the face or in the eye of his dupe, and his diagnosis is made. It is then detailed in such language as his followers are supposed to understand.

This leads me to remark here, whether we do not, often undesignedly, make a show of empiricism, by presuming that the people understand us, when we talk upon medical subjects, which are so very familiar and simple to ourselves. It is one of the most desirable acquisitions to be able so to explain disease, in plain and intelligible language, that it shall be clear and convincing to the common mind. When, as a profession, we can do this, that day marks the decline of this miserable pathology that has hung for ages, like an incubus, upon the world.

This pathology, though considered extinct by the profession, yet holds great sway in the popular mind; — and no less absurd and unscientific is the prevalent nursery doctrines of *invermination* as a cause of disease in infantile life. But no *man* will fall into the popular belief that such a thing as *worm fever* or *worm fits* are of very common occurrence; this is bad enough for old women and quacks, and yet, I fear that all our profession are not beyond it. It is a ready solution of a point of pathology,

sometimes exceedingly difficult to settle, and, beside always being acceptable, it often saves a man the exhibition of much poor physiology and pathology. But no practitioner, who makes any pretensions to science, can for a moment adopt them — he can see nothing in them to aid him in his diagnosis. If the case admits of an easy diagnosis, or there are points of obscurity in it, how can he make these known to his patient? We do not think there is any difficulty for the practitioner who really understands a case, and has a common use of his vernacular tongue, to express himself in such plain and simple language as to make himself perfectly understood. Of course, he will avoid technical phrases — terms having only a medical meaning — and all expressions that would seem pedantic or obscure. In this manner, if the diagnosis is made out, or there is much about it yet obscure, all this may be made intelligible to most minds.

If there is any one thing, beyond all others, that distinguishes the profession of our times, from that of by-gone days, it is that we have discarded, in our intercourse with our patients, all the unmeaning terms, the fanciful and jaw-breaking names, all the little mysteries and secrecies that rendered the art somewhat occult with our fathers, and have substituted for it plain common sense—and this has quite lowered us in public estimation;—and though we stand as knowing vastly more than our predecessors, having made great advances in every department of medical science, yet we are really in less repute with the people than the unblushing, boasting, presumptuous quack.

What should be the treatment of quackery? It should be that of abomination, *loathing* and *hate*. It should be considered the unclean thing — foul to the touch, wicked and treacherous to the soul — as a deadly miasm to every generous and benevolent emotion—as the death of every upright principle.

We may hold it almost a self-evident maxim, that there is some obliquity in that mind which is carried away with one or any of the forms of empiricism — an inability to be governed by right opinions and sound principles. We do not see how it can be consistent with our principles to have the least intercourse with any form of empiricism, or hold any consultations with empirics; for how can we tolerate their ignorance, baseness or folly, or if

they are not really so ignorant as they are vicious, how can we endure their base betrayal and prostitution of our noble profession?

The prevalence of the great number of pseudo theories in the healing art, the singular tendency of the age to medicine, and the unwavering reliance upon its therapeutic effects, are among the peculiarities and dangers of our times.

Medicine is a dangerous instrument to be thus dallied with:—and, independent of its demoralizing effect upon the mind, when embraced in any of the systems of charlatanry, it is fraught with the greatest danger to the body. An untold catalogue of evils, arising from this source, could no doubt be found, if we only had power to trace out, accurately, the history and effects of the one hundredth part of the nostrums taken; very much of the ill health, arising from the shattered condition of the nervous system, prostration of the digestive and assimulating processes, &c., often owe their entire origin to this blind and indiscriminate medication. It would seem bad enough to take medicine, when it is absolutely necessary, and when it is judiciously prescribed by those who really know with what intent it should be administered; and yet, how little reliance is placed upon those educated to the business, and how much upon him, who indiscriminately promises a cure because he does not know of any danger. It is thought among the people, untrained and undisciplined in thought or study, that nothing is easier than to prescribe medicine or to understand a medical theory—also to judge of the qualifications of a physician, whether he is scientific or not. How self-complacently do many of the female followers of Hahnemann berate the poor benighted disciples of true medicine, as laboring and striving in the fog, when such a pellucid and ethereal atmosphere as homœopathy is all around them. How do they pity his delusion, that he can not see that the increase of power in medicine is in direct ratio to the diminution of its quantity—that attenuation is the law of nature—when he, poor soul, would say that it was the law of fools. It would seem that the greater the absurdity, the wider the currency, and that nothing could be too monstrous for belief.

It is the opinion of your Committee, that it should be the es-

tablished rule of every physician to have nothing to do with irregular or unqualified practitioners. A proper self-respect forbids it, as well as the honor of our time-hallowed calling. If we meet such persons and consult with them, we give our sanction to their errors, and give them currency and standing in the community. With most of those classes of quacks, such as the itinerant Indian doctor, the mesmeric or spiritual doctor, the botanic, herb and water-cure doctor, and a herd of other personifications of ignorance, rascality and impudence, you have no trouble in declining all intercourse. The people do not ask us to degrade ourselves to their level. It is, however, somewhat different with homœopathy — this comes in a genteel guise, and in its bearing, it occupies the highest niche in the temple of empiricism. Their followers make great pretensions to knowledge, for they profess to go on with us in all the preparatory course of a medical education, till we separate, world-wide, on materia medica and therapeutics. Here come up their wild theories and strange doctrines, and such an amount of nonsense and inconsistency as was never met with before among reasonable and sane men.

In their efforts to appear learned, one is forcibly reminded of the description given of Sir Hudibras' learning.

> "But when he pleased to shout, his speech
> In loftiness of sound, was rich;
> A Babylonish dialect,
> Which learned pedants much affect;
> It was a party colored dress
> Of patch and piebald languages;
> 'Twas English cut on Greek and Latin,
> Like fustian heretofore on satin;
> It had an odd, promiscuous tone,
> As if he'd talked three parts in one;
> Which made some think, when he did gabble,
> Th' had heard three laborers of Babel,
> Or Cerberus himself pronounce
> A leash of languages at once."

With their untenable and absurd theories, they pretend to accomplish, with infinitesimals, attenuated to inconceivable nothingness, as much as we can by the administration of medicine; while their whole reliance is upon *nature* to restore healthy action, they

carefully removing every possible hindrance. Can we fellowship this delusion? Never, till the most incongruous and dissimilar things in nature coalesce and unite.

There is one thing more we must not omit to mention, which if it is not *bonâ fidé* quackery, it is nearly as bad in baseness and meanness. It has not been an uncommon sight, heretofore, when Thompsonianism was in its zenith, for some of the regular practitioners, who thought they could make some capital out of the popular prejudice against *calomel*, to countenance this delusion, and pretend to be converts, in part, to this system, by discarding this useful remedy and adopting some of the treatment.

In our times, when lobelia and steam have passed away, and new-vamped schemes of medicine have come up among the people — who know so much about medicine — many physicians (be it said with shame,) in their efforts to retain the patronage of those affected with these delusions, give themselves up entirely to these absurdities, or attempt partially to engraft on the profession these new-fangled notions, to the great injury of their honesty and integrity.

A regular practitioner, tainted with these follies, may occasionally be heard to sneer at the old school, and be seen dispensing hydropathy to its disciples, and the old régime to others; or dealing in little pills and globuli to his homœopathic adherents, and the grosser treatment to his old friends, who know not nor want any thing better than the old profession.

Some become partial converts to the mesmeric and spiritual delusion — they permit a few isolated facts alone to lead them from the truth, till they nearly become unable to appreciate it amid the maze of error in which they become involved. Their respectable friends become deluded, and they have not nerve enough to denounce its follies and extravagancies.

They hope by this course to retain the good opinion of such persons, but they are, I fear, too much like the dog in the fable, who dropped the piece of meat in its mouth to seize its shadow. Nothing like integrity will serve the best interests of the physician, and nothing, in the long run, will so sustain him and help him forward, as the sturdy maintenance of his profession in all its dignity and honor.

This prostitution of the profession, to subserve what has been deemed the pecuniary interest of the physician, is only equaled by another gross imposition, that of permitting the people, because our support comes from them, to exercise toward us an overbearing spirit — to lord it over us as though they had the making and unmaking of our reputations — to dictate to us what opinions we should hold in medicine, or even what we should believe on other subjects! How common is it, to hear it said that the physician must not be a party man — he must not be too much committed to any sect or denomination in religion — and he must be careful that he does not take too much interest in local matters—he may injure his popularity. Shall we yield to these unreasonable and unjust requisitions? No, unless we wish to incur the contempt of these very persons who would thus degrade us. When we have opinions and convictions which we are sure are right, no fear of obloquy or dislike should, on all proper occasions, prevent us from openly and boldly avowing them. We hold in detestation that man, whose whole life is only a system of compliances with the popular will, whatever it may be. He knows no integrity, no principles, but to keep his sails always trimmed to the popular gale.

Do our patrons not honor us by giving us the preference in employing us, and should we not be grateful for this? But they expect an equivalent and more than an equivalent, and this is duly rendered. But is not this same honor rendered to the veriest quack as well as to ourselves, and do not these render immense satisfaction often, when we can not or will not? Do they not solve all doubts, make favorable prognoses, and dispel all fear of danger, when we pause and hesitate?

We should always be grateful for any honest support we may receive, or any just appreciation of our professional attainments, and yet we can not afford to be so disinterested as to receive the *honor* as our only remuneration; we must have something more substantial, and even then, the obligation is not on our part.

We fear that the honor of our profession is not properly sustained — that there is too much truckling to a vitiated public opinion — too much subserviency to the popular will — too much

submission of great and well-defined principles to the crude and half developed schemes of the ignorant and unprincipled quack.

Your Committee have thus decided, that we can have no intercourse with quackery in any "way, shape or manner," — that it is not honest nor honorable to do so. They would impress it upon the minds of all, that in every way and manner, physicians should stand for the truth and honor of the profession. But the road to wealth is through empiricism — it is the golden course — it yields great gains; yet it should be shunned, as a syren's voice, that lures to destruction. Its paths can not be entered without defilement; it breaks down the man and substitutes an abortion, a miserable sham. We desire not to see a poorer piece of humanity—of prostituted manhood, than is seen in the conversion of a regular, well educated physician, to the ranks of any of these popular theories of medicine.

Far better is it to *starve*, with our integrity and principles in a sound and healthful condition, than at the expense of an uneasy, restless state of violated honor, to be crowned with the greatest human prosperity.

ALBERT SMITH, *for the Committee.*

REPORT OF THE COMMITTEE ON PRACTICAL MEDICINE.

By WM. H. H. MASON, M. D., Moultonborough, N. H.

MR. PRESIDENT: — In making a report upon the practice of medicine, your Committee do not design to notice any particular or anonymous cases that may have occurred, for the last year, within our district. We take the subject as it was given, in its most simple form; viz., "The practice of medicine."

It is said that the practice of medicine has, for the last thirty years, made an advance equal to, if not beyond the other arts

and sciences. No one probably will deny that it has made great progress; every age is supposed to grow wiser than the preceding, and every age supposes itself wiser than its predecessor; but it is a great mistake to suppose that every medical book, or article in a medical journal, is an improvement to medical science; too much has already been written, and too many conflicting opinions spread out for the guide (or rather confusion) of the practitioner. What young physician, or even older one, has not experienced the embarrassment of conflicting authors in looking up a difficult case? One physics and saves his patient, another does not and saves his; one bleeds and gives antimony in fever, another gives wine and bark; this author applies grease to the skin in scarlatina, and that washes the surface in an alkaline solution, to destroy what unctious matter may be there. He searches his library a whole day for something to save a very sick patient and restore him to the arms of his anxious friends; and when he is done, finds himself doubly confused, and is obliged to fall back upon his own judgment of the case, as it presents itself to him.

These differences of opinion arise partly from a premature desire, in the minds of many, to write a book; or, through periodicals, to publish their golden sentiments to the world, which are not only too prematurely conceived, but too hastily executed; but the most charitable, and probably the most truthful reason is, the fault of diseases themselves, especially epidemics, presenting themselves in different types, at different times, and in different locations.

The treatment of fever, in the Dublin Hospital, is not a perfect guide to us among the hills of New-Hampshire. Diseases of the same class are modified and essentially changed by latitude and longitude, seasons of the year, and altitude. The disease is virtually the same, yet you find very different trains of symptoms, which require a corresponding difference in treatment. In one section the disease is atonic, in another tonic; one section requires this treatment, another that; and when both are published and sent out to the world, there is a fatal collision. But this difference is not confined to opposite locations; it is the same at different visitations of the same epidemic in the same

neighborhood. Every physician of much experience has felt the embarrassment of this deceptive coloring of the same disease.

An epidemic should be studied as it is, not as it had been at any prior visitation. Then it might have required depletion; now depletion may be fatal, and *vice versa*. After the subsidence of the spotted fever, physicians did not use the lancet in pneumonia without a trembling hand, until many had suffered for want of more boldness in this important remedy. Much mischief has been done while physicians were unlearning and breaking away from prejudices established by former experiences, yet it is unfortunately unavoidable, and will always be, so long as diseases present so many phases. Take scarlet fever, for instance; you can not treat it to-day as you did ten years ago, or even last year, in the same place. Very likely you attempt it; you may have written out a treatment of scarlatina from former experience; it fails, and you are obliged to meet it upon a different plan, not, perhaps, till several have fallen a victim to the disease. When an epidemic appears, physicians should study it *as* it appears, never prejudging from any previous experience or written authority.

Sometimes the dysentery is best treated by blood-letting; at others it assumes a typhoid type; fortunately epidemics are not likely to change types during their prevalence. But these are not the only obstacles in the way of a direct rule in the treatment of disease. There are peculiar conditions, constitutional to the patient; complications which we have never seen discribed; habits, occupations, temperaments, and mental as well as physical peculiarities. No disease presents precisely the same appearances in two individuals, or in the same individual at two different times.

When a physician is called to a case, whether severe or mild, it belongs to him to make a thorough examination; no partial or superficial view of the case will do; he should enter into the feelings and interest of the patient and his friends. Every case is open to this inquiry, is it in a sthenic or asthenic condition? In olden practice it was thought indispensable to study the temperaments. In every case the patient was classed first, and then came the classification of the disease, next the classification of remedies, and thus the patient was subjected to an examination

or measurement with all the precision of the scale and dividers. In one sense the ancients were more scientific than the moderns. Their science was too precise, it overreached itself. The sick need more art and less science, more aptness and less rule. The physician who attempts to prescribe by rule will have ill success. Analysis is the only way by which a difficult problem can be wrought out in *physic*. Having decided the question whether the case is one of sthenea or asthenea, the way is clear for farther investigation, and the class of remedies easily selected. If we find the patient in an asthenic state, the question is decided as to blood-letting, unless an inflammation in some location is so great, that to draw blood is a lesser evil. There may be a tonic disease in an atonic condition of the patient, as is sometimes the case in pneumonia, that demands depletion; hence we find blood-letting sometimes immediately followed by tonics with benefit. Inflammation may be the result of capillary atomy; this is sometimes the case in erysipelas; hence tonics are frequently prescribed with benefit, even from the commencement of this disease. A physician once told me that he always prescribed iron in erysipelas. Why always, sir? It is a poor rule; there may be erysipelas that requires depletion; what then is the effect of your rule? If the patient lives, nature has vanquished both the disease and medicine. Why did he adopt this general rule? Simply because he had treated a few cases of atonic erysipelas successfully with iron. He probably by this time has found it necessary to make exceptions to his rule. This manner of prescribing is well illustrated by the following anecdote:

A certain physician was in the habit of carrying about him a little blank book in which he noted the effect of remedies. One day in his round of visits, he found one of his fever patients (who by the way was a Frenchman,) unexpectedly very much better. He made inquiry what he had taken, and learned that the evening previous, he had eaten freely of smoked herring. He wrote in his book, "Smoked herring cures fever." He next visited an Englishman, who was sick with fever; he prescribed smoked herring freely. The next day he found his patient dead. He then wrote in his book, "Smoked herring cures Frenchmen of fever, but kills Englishmen."

There is one thing, certainly, in which the profession has made an improvement; that is, more reliance upon the "*vis natura*," in the cure of diseases. The moderns are not so much ahead of the ancients, in the discovery of new remedies, as in the use and modification of the old ones. The nice chemical preparations of the present day are credable to art, but not an improvement to general practice. The nigher we can get to the crude article the better. No medicine can undergo a chemical process without a change in its natural properties — something is lost. Quinine is a beautiful preparation, and for some cases, will take the place of the bark to advantage; but it is not the bark, neither does it have its essential properties; it has no advantage over the bark, except in the quantity used, and being sometimes better retained upon the stomach; whereas, on the other hand, when it is absolutely indicated, quinine will not supply its place. In subjecting the bark to this process, its disinfecting agency is certainly materially injured, and this is an essential property, especially in malignant and putrid fevers, and gangrenous diseases, both as an internal and external remedy.

The same may be said of morphine. In this preparation, we only get a part of the opium; that peculiar narcotic property, without which opium would lose much in its reputation, is not saved, or but imperfectly so. There is no preparation, not even the tincture, where every property is retained. The day is not far distant, when opium gum will be almost exclusively used, in preference to any of its preparations.

We have some very convenient and useful preparations of iron, and perhaps it is before the time to say that the filings are preferable to any of these; yet if you will take the trouble to try it, you will be pleased with its operations in its crude state. In giving it thus, we are very frequently more likely to get the very preparation that we desire, than when we give the preparation itself, by the operation of a free acid in the stomach. The muriate and carbonate of iron may be formed in this way; the oxyd always, which, in the absence of an acid is retained in that state. I do not wish to be understood as making a sweeping denuciation of chemical preparations, for we have many indispensable remedies of this class. The different preparations of mercury,

antimony, potash, and many others that might be mentioned, have stood the test of ages, and will ages to come; but the most of this class of chemical remedies are so nearly natural as to be found in this chemical combination in nature. What we object to, is the forcing of nature in this matter; as, for instance, the union of two articles that have no chemical affinity, and whose properties are not materially changed by the process, or the union of a vegetable and mineral without the intervention of an acid.

The physician should not forget that all drugs are an injury *per se;* no medicine should be administered unless it is clear that the good will outweigh the evil effect.

It was once supposed, by physicians, that diseases had their specifics, and this opinion prevails among the people at this day. A patient once said to me, "Do you know what ails me, sir?" "Yes, sir," said I. "Then," said he, "you, of course, know what will cure me." Such a delusion in the physician necessarily leads to a false practice. He prescribes for names instead of symptoms. With many practitioners now, some medicines are specifics; with homœopathists, all are. And I see no just reason why, if one is, all may not be. The fact that medicines act upon particular organs does not constitute them specifics. Squills, antimony, and ipecac will act upon the lungs, but no more upon them than any other organ possessing mucus linings. Murcurials affect the liver, so it does all the glands; and while it is doing a good office to the liver, it may do badly to some other parts. Some drugs seem to have a specific effect, yet if rightly understood, they are susceptible to a rational explanation. The physician was once looked upon, universally, as dealing with *disease* instead of a sick body; for this reason, in every age the practice of medicine has been wrapped in a mystical garb — classed by some among the occult arts; the practitioner looked upon as a sort of necromancer, or dealer with evil spirits. Happily this relation between us and the people is fast passing away. And when our practice is no longer enveloped in mystery, quackery will die for want of nourishment. The exposure of an old imposition is not a sure protection against new ones. The anointing of the weapon, by which wounds were inflicted, as practiced by the Rosicrucians, received universal favor in the seventeenth

century; since which, men have ridiculed its absurdity while dealing out infinitesimal doses of sulphur for *psoriasis*, a practice, which will, in the next century, be looked upon equally as absurd. There always were, now is, and always will be, Oguls seeking after basilisks.

There is nothing of great magnitude upon which people are so profoundly and ridiculously ignorant, as in the operation of medicine. It is very difficult to disconnect it, in the minds of many, with some thing *supernatural*. The fact that it is to them inexplicable, naturally leads to this delusion. It was once thought by many, and by some now, that the butternut bark, stripped upward, would act as an emetic, and when stripped downward, would physic. And this is only one among a thousand equally absurd notions. One man stirred, with a spoon, his medicine toward the sun, then reversed the motion, and swallowed, what he supposed, and very likely was, an *emeto-cathartic*. It is the bounden duty of every physician to disabuse the public mind, as much as possible, of these unhappy absurdities. It is for the interest of the learned physician so to do. I do not believe what was once said, that "He who taught his patients anatomy, would soon have no patients to teach." The introduction of physiology into our schools is fast tending to bring about this desirable result, and should be encouraged by the profession.

It is for the interest of charlatans to nourish these delusions—it is upon them they must rely for patronage. I can prove to you, without going out of this city, that a doctor once actually directed his patient to be washed in a solution of coarse salt in the morning, and of fine salt at night; and the friends were surprised that the attending physician did not see so important a part in the cure, and did not see the foolery of it until asked by the physician to explain the difference between a solution of coarse and fine salt.

Quackery demands such mummery—science does not; and it is by this that the most ignorant and uncouth quack sometimes, yes, frequently, gets the precedence of the regularly educated physician. The public need to be enlightened upon this one point. General intelligence upon other matters is not a sure guarantee against this imposition. We see this assertion made true, fre-

quently, in the intermeddling of the clergy with the management of the sick. I once knew an intelligent and well educated lawyer to buy of a coarse, dirty, illiterate, traveling doctor, one or two bottles, each containing one quart of New-England rum and one ounce of cape aloes, for which, I understood, he paid three dollars per bottle. The fact became known by the materials being purchased and mixed at a store in his neighborhood.

Once the physician could not be disconnected with his art, such was its magic. He must not receive the honors and emoluments incident to other men. Now they are becoming as other men, "matter of fact men." In our own society, within the last few years, our members have shared largely in the honors of the people. One of our members has worthily received the highest position in the suffrage of the State, while many others have been and now are members of the Council, Senate and House of Representatives, all of which positions, have been filled in a manner highly credible both to the individuals and to this society.

And, in conclusion, I am happy to be able to say, that there never was a time when the New-Hampshire Medical Society was more prosperous than now. Many new members are yearly added to our number. The profession generally feel the need of such an organization. The publishing of its proceedings, the reports of committees, and the adoption of the two days' session, have added much to its interest, — and if the Society continues in its present harmonious, useful and interesting condition, it will be but a short time before it will embrace all, or nearly so, of the active and ambitious members of the regular profession in the State.

Wm. H. H. Mason, *Committee.*

the changes that exposure to heat or moisture must have upon them; and, last though not least, the very great cost of such articles, have led me to think that it will yet be a long time, even with constant experimenting in their chemical analysis, before we possess them in sufficient purity and permanency for use. But we have an excellent substitute for the powder in the fluid extracts which have lately come into use, and which are quite as convenient, and in some respects more so.

In the department of materia medica, with such results as these, we must never cease to be making continued requisitions upon chemistry, till the whole department is revolutionized, and we can be assured that we are only giving the active principles when we administer any given article. The chemistry of many articles, notwithstanding the great progress of this science, is yet in a very unsettled state — it will require much time, patience and careful analysis to settle many of these principles, and insure certainty to them.

In the fluid extracts, we have just what we have long desired, a pure, concentrated and scientific preparation, divested of all its inert concomitants. The fluid extract of valerian, which is familiar to all the profession, will illustrate what I mean. We have here the valerianic acid in solution with the oil, and divested of all its inert constituents, such as starch, albumen, extractive matter, various salts and woody fiber, which constitute, on an average, about five eights of the whole of its other ingredients, having no medicinal value at all. Now if this acid can be thus separated from the other ingredients, and preserved without the use of too much alcohol, it is a great gain indeed to practical medicine. It enables the physician to know just the amount he is giving—to calculate upon the precise effects of the medicine—and never to feel that in the hot infusion, perhaps all the essential oil and valerianic acid have been driven off; or, that the root has lost its power from some mismanagement in its preparation or preservation. It is so with many other articles, some of which are more incumbered with inert constituents than valerian. Now a process that gives us the active principle, in a small bulk, in a pure state, and in a durable and permanent form, is a great object gained in the science of therapeutics.

I think very favorably of the fluid extracts of Tilden & Co., and of Henry Thayer & Co., which are coming into such general use among the profession. They are scientific and reliable preparations, and offer to the practitioner many advantages over the ordinary mode of medication.

It may not be uninteresting to the profession to detail here more fully the manipulations employed in their production, which have been clearly and kindly communicated to me by Henry Thayer, M. D.

In reply to my letter, asking him for such information in regard to the preparation of these extracts, as he felt willing to communicate, he says:

"I claim nóthing particularly original. I only have my own way of carrying out well known principles in vegetable chemistry. There are three objects to be accomplished.

First, to separate from the raw material its medicinal properties—its active principles.

Second, to reduce the extract in bulk.

Third, and this a peculiarity of my preparations, to give the active principles, solubility and permanency.

The first step is very important. We adopt the method of cold percolation, which, though more expensive, yields an extract of perfect quality. We discard boiling, steaming, pressing, &c., finding the products injured thereby.

For each article the proper menstruum is used; and not books, but experience has taught what it should be. Thus, for senna, we find that cold water yields an extract not unpleasant to the taste, and mild in its operation as castor oil, while boiling water and alcohol give an extract which gripes, spite of aromatics, salines, &c. Therefore, for senna we now use cold water. But mandrake would not be good with water, as the resin is its active property; therefore for that, alcohol must be used. Thus, through our whole list, each article has its proper menstruum, and we trust that each day's experience will make our rules more perfect. In fine, we carry out, on a large scale, the directions of the dispensatory, with such modifications as experience has taught us.

Heat spoils extracts — we avoid it as much as possible. It

carbonizes, producing chemical changes and alterations in medicinal effect.

In the second place we concentrate in a vacuum. Supposing that heat did not of itself injure the ultimate active principle — the alkaloid — it still does it incidentally, as oxygen has an injurious affinity for extractive matter when heated to 212°. A vacuum, then, benefits in two ways, we gain 100° in temperature, and avoid oxygen. We boil with the thermometer 110° to 120°, and the barometer at 27 to 28 inches.

Lastly, solubility and permanency, a peculiarity of our extracts, and in which they differ from any I have seen, is their general transparency and beauty, an appearance secured by solving the extract. Made according to the dispensatory, the extractive is a precipitate, suspended in sugar. It is muddy and lumpy; will harden at the bottom—the last dose being much stronger than the first; but a solution is always alike, a drop taken from any part contains a reliable amount of strength. We have discarded all admixtures, sugar, flavoring oils, &c. I am aware that in doing so, they are not so pleasant for the taste of many patients; but does not a physician prefer that a fluid drachm of rhubarb should not be forty grains of sugar? The officinal form of syrups is very profitable, as sugar at ten cents per pound pays well when sold as rhubarb; but for mixtures a plain article is best, and it is easy to sweeten and flavor it when used.

Again, sugar hurts their permanency. In warm weather it will cause fermentation, in cold weather, crystalization. To sum up the results and conclusions I have come to, as shown by my extracts — they may be called, for the purpose of description, concentrated tinctures, with a smaller proportion of alcohol, their properties unattended with no attempts to improve them by admixtures of other substances. Rhubarb is rhubarb; dandelion is dandelion. They will keep permanently, which can not be said of saccharized extracts, and the pound first bottled is the same in strength as the pound last drawn."

It will appear by this communication, that there is no secrecy in regard to these fluid extracts; that they are produced only by the strictest attention to science, and are the legitimate fruits of the progress of organic chemistry. The question is often

asked, whether these extracts, like every thing else, may not be adulterated, when there comes to be a greater demand for them, and there shall also be greater competition in their manufacture? This may be so — but these articles being the results of a purely chemical process, not mere mixtures and solutions like all the nostrums of the day, they can be tested most satisfactorily by every physician. I have been furnished with a few tests, which have already been successfully tried, which will be found very simple and within the means of every physician.

To show the presence of volatile oils—to half an ounce, more or less, of the fluid extract of hops, add an equal quantity of water. The oil and water produce the usual milky emulsion, and, upon standing, the oil rises. May be repeated with buchu, cubebs, or any extract which should possess this property.

To show resin or resinoids, repeat the experiment with mandrake.

To show alkaloids—add to half an ounce of fluid extract of blood-root, three drops sulph. acid, then a few drops of hartshorn. A profuse deposit results.

To show the value of the astringent extracts—add a few drops of fluid extract of oak bark, hardhack, blackberry, or cranesbill, to an ounce of water. The solution is clear and colorless. Add a few drops of tinctura ferri chloridi and it instantly assumes an inky color, proving the existence of a large quantity of free tannic acid.

To show the tannin ontained in rhatany—add a few drops of fluid extract of rhatany to an ounce of water; add a few drops of mineral acid, or of liquor plumbi sub-acetatis; a precipitate follows.

I will close this paper by briefly mentioning a few of the advantages that may be derived from these extracts.

They are uniform in strength — there need be no experimenting with doses till we reach the desired effect—it may be accomplished at once.

There is a certainty also about these extracts that is very satisfactory. Given in the doses directed, you will not fail to see the peculiar effects of each article in a very short time, without being obliged to resort to dangerous or heroic doses.

They offer many advantages from their concentrated form; there is no necessity for large doses. It is certainly a great gain to see the same effects from five drops of the fluid extract as from a drachm of the tincture, or wine of colchicum; or from ten drops of the extract as from a drachm of the tincture of hyoscyamus. In this concentrated form it is very convenient for the country practitioner, who is obliged to be both physician and apothecary; he can have the means by him, wherever he may be, of making such a prescription as he wishes, when formerly he was obliged to adapt his prescription to the resources of his trunk.

They enable the physician to make, extemporaneously, syrups, infusions and tinctures, that are perfect in character, with a small amount of material.

They are easily administered, and well retained on the stomach. They come as merciful draughts to nauseated stomachs, in comparison with the old unsophisticated mode, of always well impressing the gustatory nerves. They are very excellent remedies for children, with whom we often have so much trouble in administering medicine.

They are always ready at hand for use — they will keep any length of time without injury.

There is also a neatness about them, that adds greatly to their value. What a friend of mine said of homœopathy, applies equally well to these extracts — "there is no daub about it;" which truly can not be said of all medical manipulations and administrations.

They will take the place of many of the worthless nostrums now so prevalent, and come into popular use from their safety and reliability. In an age in which the community seem to be carried away with a mania for medicine, so that most every person must have their favorite pill, cough-drop, pain-killer, syrup, &c., it will be no small object attained to substitute for them these pure extracts.

And, finally, they merit the attention of the profession, as one of the most important advances ever yet made in materia medica, —an advance in the right direction—a result of the progress of science.

They promise, as they are brought to still higher perfection, to be of the greatest value to the therapeutist, and may very materially modify the whole doctrine of the treatment of disease.

ALBERT SMITH, *Committee.*

INFLAMMATION:

A DISSERTATION, *read before the New-Hampshire Medical Society, at its annual meeting, in Concord, June* 3 *and* 4, 1856, *by* P. A. STACKPOLE, M. D., *Dover, N. H.*

GENTLEMEN:—Without a formal introduction, permit me at this time, to make some remarks on inflammation. In selecting this subject, in preference to other medical topics, we deem it unnecessary to make any apology, when we consider the frequency of its occurrence, and the difficulty, often, in arresting its progress. A large proportion of cases with which the physician has to deal, originates in this state of diseased action. In the daily routine of the medical man, it is continually crossing his path; its ravages are revealed to him wherever he is called to assuage pain and alleviate distress. To prevent its inroads, he is often called upon to struggle hard and faithfully, with no solace of success, and with many a humbling and distrusting thought that all his skill and ingenuity has been baffled by this disease — the nature of which he knows but little, and never can, till the origin or cause of all disease is known. Perhaps he is called, for the first time, to attend a patient sick with *peretonitis.* He notes the progress of the disease, and sorrowfully watches every new phase it exhibits, while the anxious friends of the sufferer implore his aid to no avail, and he is compelled to witness the flickering flame of life extinguished, from pain and debility,

with but little or no aid or comfort given by his experience and knowledge.

Again, he may be summoned to one prostrated by some external injury. He sees the burning and inflamed appearance, the threatening fever, the quick pulse, the branching strides of inflammation, as the disease courses along the vessels, until it reaches its last terminus—mortification.

These, it is true, are among the extreme cases in the physician's experience, yet are of untold importance, when we take into consideration the ease and rapid progress with which inflammation seizes upon its numerous victims, and hastens them from health to protracted disease, and from disease to the grave. We all too well know, that a very slight injury, improperly treated, may often result in deformity, or in the entire destruction of the function of some organ of the system. If such are the terrible results of inflammation, then we can not too thoroughly understand its history or study its mysterious nature.

The term *inflammation*, has been made, figuratively, to represent, from a very remote period, the heat, redness, and painful sensation, which are seen in the diseased action of various parts of the system. It has been generally distinguished by four signs, usually considered as infallible signs or marks of its occurrence; viz., heat, redness, swelling, and pain. The word *inflammation*, has often been vaguely used by various authors. It has been made to denote alike the slightest exaltation of what is healthy, as well as the severest results of disease, "rendering the cause of simple effusion one and the same thing with that of suppuration and gangrene, uniting, as if in one harmonious operation, the healing of a wound with its gaping and suppuration." This evidently is wrong. There has been, also, a like misapplication of language, in supposing that where any one of the four signs of inflammation occurs, there the disease itself existed. Wherever redness is seen, or pain, or swelling, or heat, inflammation is said to exist. We do not deny but these are generally present, but are not to be trusted as its unerring signs. For instance, congestion and the inflammatory process are confessedly two different stages of diseased action; yet the same external appearances are often found in both. In inflammation of the bones and liga-

ments, pain is the chief symptom, while on the contrary, when inflammation seizes upon the large viscera, there is but little pain felt. In cases generally, of this character, the other signs are, for the most part, absent; and yet, it can not be said that inflammation is not present, for all its usual consequences follow in these particular cases.

We shall define *inflammation*, then, to be that morbid process which interrupts the normal functions and healthy action of the fluids of the body, generally accompanied with one or more of these signs; viz., heat, redness, swelling, pain, impairment of function, with an increased sensibility of the affected part, and more or less constitutional disturbance.

In the brief examination of our subject, we shall notice some of the causes, phenomena, symptoms, and the results of inflammation; and lastly, whether it is necessary to the healing process.

I. *Causes of Inflammation.*—These may be resolved into the predisposing and exciting causes. Of the former, we know but little, nor can the utmost ingenuity and research hope to unveil the mystery in which it is shrouded. All that we can say or know is, that a peculiarity of constitution predisposes its occurrence. Habits of life, age and sex, &c., of the patient, have much to do with it; and, that at different seasons of the year, an organ, or some part of the human system, from its peculiar and excitable state, takes upon itself an inflammatory process, while at other times, it is comparatively exempt from any morbid influences, even under the same exciting cause; that in proportion as this predisposition is developed in the system, to that degree will diseased action be likely to extend. The persons, however, most prone to inflammatory action, are those whose systems have been weakened, or irregularly excited by former disease, impure air, and improper nourishment.

The abnormal action of certain functions of the body, as derangement of the internal viscera, plethora, local determinations of blood, certain morbid states of the constitution, as scrofula and gouty diathesis, will cause inflammation to develop itself more readily than otherwise. In this connection, we would say, that the severity of the exciting cause, and the extent of the

injury will increase or modify the intensity of the diseased action.

Exciting causes are agents which cause irritation internally and externally by local irritants—as chemical, vital or mechanical irritants; or by unseen agents which pass into the system and produce inflammation.

Local irritants can be divided into three distinct classes — mechanical, chemical, and vital irritants. Thus all wounds: a small particle of irritating matter in the eye, are examples of mechanical irritants. Chemical are those which act upon living or dead tissue, and tend to decompose them, as the acids, alkalies, and some of the corrosive salts. Vital irritants possess no chemical character, or if they do, it is unknown. They act upon the living matter alone. They are such substances as capsicum, cantharides, and also the animal and vegetable poisons, the secretions, when turned out of their natural channels—as the urine, and the tears, and also some of the excretions.

There is another class of agents, which lead to inflammation by absorption into the circulatory system, and by being taken internally into the stomach, such as mercury, infection of small-pox, measles and scarlatina. In these instances, there is no doubt that it is excited by their actual presence in the blood, which often conveys the irritating matter so diffusively throughout the system, that a large part of it becomes engaged at once.

There is a third class which acts indirectly upon the system, by producing congestion, and, when reäction comes on, operates upon the system so as to produce inflammation. These agents are cold, malaria, and those unknown influences which excite continued and eruptive fevers, venous obstructions, and congestion.

In addition to the above causes, we would cite the suppression of natural and habitual discharges—as the catamenia, drying up of old ulcers, by causing a fullness of the vessels, either in the organs themselves, or in parts which strongly sympathize with them, and in consequence of which, congestion, and not unfrequently, inflammation follow.

II. *Phenomena of Inflammation.* To excite inflammation, some one or more of the predisposing or exciting causes must

make an impression upon some part of the human system. Then a sense of injury is conveyed immediately to the nervous centers, by the nerves running to the irritable part, and by reflex action, the nerves cause the blood-vessels to contraet, as if to repel the irritating substance. If the cause be local or mechanical, a short time intervenes after its application, before any conceivable action commences. The space of time varies according to the force of the exciting cause; in some cases, action commences almost immediately; in others, after a long time. This may be termed the stage of inaction, perhaps improperly so termed, as there is no cessation of action, though, to all outward appearance, such seems to be the fact. The impression on the nervous centers will, in a short time, excite the minute capillaries to immediate action, by diminishing, in the first place, their caliber. This increased contraction soon relaxes, and these vessels gradually yield to the impetus of the blood, which is being sent into the injured part in great quantities. On viewing the structure with a microscope, while this is going on, the capillaries will be seen to be enlarged, and though, in ordinary circumstances, they contain only 'single files of red corpuscles, they now admit them in masses.' Hundreds of minutest vessels, shut out from common observation, are now shooting out in every direction, connected with their parent vessel. These are not new vessels, as was formerly supposed, but only such as escape our attention in their natural offices. The injured organ, as the force of blood increases, will hold more blood; its sensibility will be but slightly elevated; nutrition a little increased; and there will be a tendency to the exudation of the serous particles of the blood. During all this, the healthy action of the organ is but little, if any, changed. There is only a slight exaltation of what is healthy, and that not inconsistent with health. This is the stage when the adhesive process is completed.

If the exciting cause be severe or remains, then an increase and advancement of action begin; more and more blood is injected into the part; the small capillaries are less able to bear their over-burdened contents, and they gradually give away. The arteries, in the mean time, partaking of the general excitement, are commencing to pulsate with energy, and by degrees to

enlarge. The blood, which in the last stage appeared normal, is now viscid, and in the center of the wound, may be seen forming a globular mass, while all around it a serous fluid is being poured out. The exudation is accelerated, consisting of serum and liquor sanguinis, the latter predominating. But on the continuation for a little while, fibrin alone exudes, which strongly tends to organization. It is during this period, that the natural functions of the wounded part and system become impaired and nutrition somewhat disturbed. The color of the organ, in most instances, is uniform — of a reddish hue, and there is a strong tendency for the disease to move on. Still, if the exciting cause is removed, health may return by suitable management. This is the stage of congestion. The cause of it is this, while the blood is moving slower and slower, there is a constant adhesion of the white globules of the blood to the sides of the arteries and capillaries, as is proved by the experiment of Gendrin, and others. It is not improbable, as Leibig observes, that there may be a union of tissues of the wounded part with the oxygen conveyed by the arterial blood, and this may be the chief cause of the product of this stage.

Thus far, we have examined what may be termed the formative stages of the inflammatory process. If there is an increase, and inflammation is more developed, then a new state of things exists. The changes of blood, already commenced, are completed — stagnation follows, and the capilliaries lose their power of contraction. They are now crowded with colorless and colored corpuscles. There is an effusion of altered liquor sanguinis, and in large quantities. Suppuration, which marks inflammation, is observed, and disorganization of texture rapidly follows. The fibrin possesses no plasticity, and disinclines to organization. The secretions are vitiated, and the healthy action of absorption is held in abeyance. Constitutional disturbance is more or less noticed, and unless there should be subsidence of disease, the whole system becomes involved.

In the history and progress of the vaccine pustule, these several phenomena can, we think, be easily traced.

III. *The symptoms of inflammation* are, usually, heat, redness, pain, swelling, weakness, with increased sensibility, throb-

bing, and some constitutional symptoms. These all may be attendant upon the formative stages of inflammation, but not always well marked. To establish the fact of inflammation, it is not necessary for all these to appear at once; one or two may be present, while the others are absent. Let us speak of them as they are usually found in disease.

Heat. This symptom is not so well marked as would be naturally supposed. In fact, much dispute has arisen among writers, as to the question whether increased heat ever exists in disease. But of this there can be but little doubt. The temperature of the affected part is appreciably elevated, although in certain inflammations—as of the bones and ligaments—it can not be easily perceived. But it is not an unerring sign of inflammation. A part may seem warm to the touch, when actually no disease is in existence. In the act of blushing, heat is produced as well as color, yet the part is free from disease. Correct diagnosis, therefore, can not be made from this symptom alone. It must be in combination with some of the other symptoms, to establish the truth of the existence of inflammation.

Heat, in inflammation, is caused by increased sensibility of the organ, and the unnatural action of the blood vessels, which are sending through and around the diseased part an unusual quantity of blood. It is known, that, wherever the texture is highly organized with nerves, there heat will show itself most. If a ligature is placed around the femoral artery (and there is an instance related by Prof. Hayward in his clinical lectures,) the temperature below the ligature is elevated, and the patient himself experiences the sensation of heat to a greater degree. This is due, doubtless, to the greater quantity of blood sent through the smaller arteries than usual.

Redness, in most instances, is a prominent symptom, and is easily accounted for. The arteries and capillaries, which carry out the colorless particles of the blood, or serum, become more diluted, and then allow the admission of red blood. This can be seen in transparent membranes only—as the pleura and peritorium. One of the most beautiful examples, is inflammation of the conjunctiva, in which red blood is never observed, except in disease or irritation.

Redness takes place in proportion to the intensity of the inflammation — to the natural supply of blood in the organ itself, and to the dilatibility of the blood vessels. The vessels of the skin, for instance, being numerous, there will be found redness to a greater degree than in other parts. The degree of redness, or color, varies from a bright red to a dark purple hue. The brightness of color is noticed in acute, and the purple in chronic and asthenic inflammation. There is no regularity in its extent, being confined at times to a very small spot, or extending over a large surface, depending upon the virulence of the exciting disease.

Redness is seen in blushing, in the glow of action, in the ruddy cheek of health, where inflammation does not exhibit itself; therefore, it is not a truly diagnostic sign. Inflammatory redness is more stationary than that of health. The latter wanes and goes; the former continues upon pressure, and is generally permanent. A part may be preternaturally red, as in certain exanthematous affections, when it would be the height of absurdity to say that inflammation existed.

Swelling arises from the enlargement of the vessels of the inflamed organ, and from the escape of fluid, in large quantities, into the cellular substance. All membranes do not equally enlarge. The serous, for example, on account of the thinness of their coats, admit of but little extension before they are broken and the effusion is poured out into the surrounding parts. But, on the contrary, the mucus membranes being more highly organized, the enlargement of the vessels causes, not only swelling, but retains the effusion from passing off.

Swelling begins as soon as the wound pours out any liquid. It is seen sometimes before inflammation sets in. It is observed in congestion, from recent blows, tumors, and from the sudden protrusion of hernia; and yet, no inflammation is found. It then is valuable only when conjoined with other symptoms.

Pain is usually experienced as soon as the injury is felt. Its cause is with difficulty explained. There has been an attempt to ascribe it to the distension of the blood vessels, or to some mechanical source. But these only aggravate, they do not produce pain; pressure elsewhere, to the same degree, will

not cause pain, even if inflammation exists. Pain, however, depends upon the character of the disease, and upon the structure of the parts engaged. Without doubt, an injury is made upon the nerves, which causes a disorder of sensation, and this is what is denominated pain. The nerves, in every instance, act as messengers, to convey the sense of injury to the mind of the sufferer; warning him of local mischief, which, if neglected, would lead to dangerous inroads upon the system. It is the wisdom of a kind Providence who has endowed us with such powers, that the least injury or disease going on in any part of the body can not proceed unknown or uncared for.

The intensity of pain is dependent, to a great degree no doubt, upon the pressure produced by the enlarged vessels upon the nerves. This is known by the fact, that pressure invariably aggravates and increases the severity of pain. Upon the natural sensibility and unyielding nature of the texture, springs much of acute pain. Some parts, as the parenchymatous and mucus membranes, being soft and yielding, are not the seat of so much suffering as those of an unyielding character, as the bones and ligaments. This accounts for the fact, well known to every physician, that in inflammation of the lungs, frequently but a slight sensation of pain is felt, while that of the bones, ligaments, and tendons brings the most excruciating distress.

The character of pain varies. Sometimes dull or acute;—at other times burning or tingling, as in the skin;—sharp and lancinating, as in the pleura. At other times there is conveyed to the mind a sense of itchy-prickling, throbbing, as in the cellular tissue; and at other times, it is of a morbid character, of which it is difficult to give an accurate idea by words. Sometimes it is found at a distance from the inflamed part—as, pain in the shoulder is often a mark of affected liver; and pain in the knee, of a diseased hip.

Pain is not always the result of inflammation. It is often occasioned from spasm and simple irritation. Inflammatory pain may be recognized by its gradual increase in intensity. The pain of spasm and inflammation differs in this respect; that of the former is intensely violent from the outset; while the contrary is true of the latter. Pain of spasm may be relieved by pressure,

as in colic; while in peritonitis, the least touch on the abdomen is almost insupportable.

Weakness or impairment of function. Previous to the inflammatory stage, there is an increase of action. The parts injured by excessive labor soon become weakened and unable to perform their wonted functions. The secretory organs are imperfect in their operations, and the secretions become diminished. The blood is modified and changed in its constituent elements—is bereft of its vivifying power; and in fine, if disease is severe, there will be found general debility and an abnormal state of all the organs of the body. The stomach loses its power of digestion,—the veins and arteries are unable to act as organs of circulation,—the eye and ear become extremely sensitive, and destitute of that beautiful adaptation which usually distinguish them in their regular duties, and the wounded or diseased organ is incapable of performing its usual offices. The sensibility, at first greatly exalted, soon is destroyed, until at last a general impairment of the functions of the human system is seen. The pulse becomes slower and weaker, respiration hurried and oppressed, and the vital powers greatly weakened.

But without dwelling farther upon the symptoms, although there are others found in almost every case of inflammation, let us next consider the *results of inflammation.* These are, usually, the reparative process—effusion, suppuration, ulceration, softening, cicitrization and mortification. The first two can not be properly termed the result of inflammation alone, as they are seen in other situations. In fact, its true effects are effusion of pus and serum, suppuration, softening and mortification. Inflammation is always injurious and destructive.

The *reparative process* should be distinguished from inflammation, as the former is generally seen on the decline of the latter. All that is meant is, that inflammation terminates on the reparation of the diseased part. When the reparative process commences, the severity of pain and heat subsides, and gradually redness, and swelling, and constitutional symptoms become less severe, the pulse softer, the skin moist, the secretions more regular, though somewhat abnormal in their appearance than when in health,—the over-loaded capillaries are less distended,—

and, ultimately, an equality of action is brought about between the different organs and vessels; and the whole system makes rapid strides toward health. Soon healthy fibrin is poured out and becomes organized in small points called granulations. These are more plentifully seen when there is but little excitement, and never found when inflammation is highly developed. Whenever these are beginning to form, if the parts are again irritated and a new action is induced, then they are quickly absorbed or converted into pus.

Formerly the granulating process was believed to be the only proper mode for the healing of wounds; but it is generally known that healing occurs without their presence, leaving a cicatrix not so highly organized, but agreeing, in almost every respect, with the original texture of the skin.

Effusion begins almost as soon as the part is injured, but it is of a different character than that which is observed while the process of inflammation is going on, being principally of a serous quality, together with *liquor sanguinis*. It is a process of nature to unload the burdened vessels, by which pain and other symptoms are relieved. When serum alone is seen, it is the product of a low and chronic state of action, and when fibrin is poured out, it is the result of a higher degree of action, and is mostly observed in the formative stage of the inflammatory process.

Perhaps it may not be amiss at this place to speak of coagulable lymph, as it is before and after the inflammatory process. This is met with in the same situations with serum, but undergoes a different arrangement in its disposition. It is, in the first place, of a semi-fluid character, ductile, and is capable of assuming an organic form. The fluid portions pass off, as congestion arises, while the fibrinous matter remains in a simple film, or in masses more or less detached. It is at first transparent, then yellow and opaque. If in small quantities, it is taken up by the vessels; but if large masses are found, it assumes the form of a simple fibro-cellular tissue.

This lymph may be divided, as to its character, into enplastic and aplastic lymph. The former is highly capable of being organized; the latter is not. Enplastic lymph, when about to organize into regular form, arranges itself into fibrils of fibrin,

crossing each other in various directions, and becomes mixed with numerous exudation corpuscles. The slower this process, the nearer perfect is the newly formed tissue. The particles, having much time to arrange themselves, aggregate into more definite forms, just as crystals are more beautifully formed when the process of crystalline action takes place more slowly. During this organization, this lymph is endowed with vessels, in which the blood circulates; and, in process of time, the fibrin is so perfectly arranged and organized as to resemble the original texture. Of course, if inflammation be present, this beautiful state of things does not occur.

Aplastic lymph is less favorable to organization of a healthy nature. It is the product of inflammation. It never reaches, says Miller, "higher than the exudation-corpuscles,—then degenerating into the pus-globules, it is associated with the serum of the liquor sanguinis, to constitute purulent matter." This kind of lymph is developed in consequence of the degeneracy of the blood and the continuation of inflammation. Certain states of the system, as scrofulous or cachetic subjects, favor the production of this kind of lymph.

Suppuration. The tendency of all ulceration is to the formation of pus. This is never seen unless cöexistent with inflammation. But its intensity may altogether change the qualities of pus, or entirely suppress it. This can be observed, when ulcers become inflamed by means of stimulating injections, or by other means. The cure of gonorrhea, is an example. Pus, when examined, is an opaque, yellow substance, of about the consistency of cream, of slight odor, and of a specific gravity a little more than water, and, therefore, sinks in water, and is detected when expectorated from the lungs in this manner. When viewed with a microscope it consists of a serous fluid, and of globules of a pretty regular size, which may be regarded as the liquor sanguinis, in a changed state. And properly, pus may be said to be the liquor sanguinis whose fibrin has assumed a very low form of organization.

The immediate cause of suppuration is the contact of air with the inflamed part, and the peculiar state of the blood. The atmosphere promotes its formation, either by some chemical influ-

ence, or by increased irritation which air may have on the living tissue. It is well known when air is kept from a wound, in the modeling process so-called, healing follows, in most cases, without inflammation.

The extent of the suppurative process is in proportion to the intensity of the inflammation and extent of the injury. In small wounds but little pus is formed, unless the state of the system is favorable to its production. When large quantities are thrown out, the system is apt to suffer under this morbid process, and the patient worries out his existence with great prostration and with the most aggravated symptoms. But, as a general thing, suppuration is unattended with any untoward symptoms. It often brings along with it a relief from suffering, and a more favorable state of the system. However, in bony structures, suppuration is attended with any thing else but ease to the patient.

Ulceration seems to be caused in consequence of inflammation in some cases. It is always the result of an impairment of the vitality of the part, induced by either inflammation or weakness, pressure, or other external injuries. Parts most liable to it are those which have the least vital power, imperfect structure, and farthest removed from the center of the system, together with a poor state of the blood. Ulceration extends in proportion to the extent of the injury. The system is but little affected by the most extensive ulceration—not so much so as the nature and extent of inflammation, which places the parts in the proper state for ulcerative absorption. As ulceration is the consequence of inflammation in most instances, so, to effect a cure, the excitement of the affected part must be removed, as the best means of arresting its progress, and producing reparation of the lost tissue.

There are two other results of inflammation—*softening and cicatrization*—which we shall barely name. The former is observed from the very commencement of the inflammatory process, and continues till reparation is established; the latter is found after the healing of a wound. The wound is filled with a hard substance, differing from the original structure, but assuming a covering, resembling, in some degree, the skin and other circumjacent structures.

Our last inquiry is whether inflammation is essential to the healing process.

Until within a few years it has been the uniform opinion of all writers upon this subject, that inflammation was essential to the healing process, and that, too, notwithstanding the bold fact which met the supporters of this doctrine, in the fearful ravages and results of inflammation.

Hunter, the great founder of surgery, unqualifiedly states that "it is the means by which injuries are repaired, and may be considered as the restorative process." Sir Astley Cooper says, "no wound can be repaired without it; even the little puncture of the lancet, made by bleeding, would evidently destroy life, if this salutary process did not prevent." Watson, a more modern writer, remarks that, "by inflammation wounds are healed and repaired," and that in the inflammation of the intestines, resulting in the ulceration of their coats, adhesion of the intestines to the peritoneum occurs to check the outlet of the contents of the intestines, and to bring about this result, inflammation is a salutary and essential thing, not considering that nature in her kind operations is ever lending her hand to ward off the ultimate destruction of the offices of any organ, by uniting in those very means which tend to health and reparation.

Such seems to have been the opinions of writers upon this subject, and we need not add that they have generally received the assent of medical men. But we can not possibly conceive of the correctness of such language. To adopt the principle or theory in its whole extent, that inflammation was actually necessary, and required by nature to heal, or that it was in truth the reparative process, would prove most fatal in practice, and contrary to the sound experience of all medical men.

Why may it not be said of all forms of disease, that they are absolutely required for good health, because, forsooth, a few persons, after a protracted sickness, recover, and apparently become healthier than before? No disease, be it in the form of inflammation, or what not, is ever demanded to promote health, or to restore lost tissue to its wonted integrity, though it may be induced by uncontrolable circumstances; but, on the contrary, it is a result to be combatted, and altogether undesired. We do not

mean to say or to be understood that inflammation can be avoided, for this would be opposite to the experience of all physicians.

Now when inflammation seizes upon any internal organ, it is conceded by all to be a diseased process. In gastritis, no one will for a moment contend that it is a healthy action for the stomach, when disease is spreading its ravages in this organ. In the case referred to as the opinion of Watson, it is not true that adhesion was set up in anticipation of the escape of the contents of the intestines into the abdomen,—but by the adhesion, the danger, it is true, may be less, and might actually prevent fatal results; but if so we can not reason that nature produced this adhesion to provide against its occurrence. Look at the inflammation of the brain and of the solid structures; here we find no beneficial nor healthy action produced, but the opposite. Not only so, the physician has to draw largely on his skill to check the progress of this disease in these and similar cases. If such is the nature and result of inflammation internally, its presence externally must be as malicious and destructive. It must be a diseased action wherever it occurs, and not essential to health. Take, for example, phlebitis, irritis and erysipelatous affections; in these diseases, we find it is any thing but happy in its effects, and when uncontrolled it will lead to disorganization.

But it will be allowed, in the cases referred to, inflammation is an unhealthy process, yet in the reparation of wounds it is required and demanded. Let us then examine this question, and see if it be essential to the healing process.

It has been a long time said that wounds are accustomed to heal by a process called "first intention." Hunter himself, although he speaks in his writings of inflammation as essential to reparation, says that "union in such cases is without pain or constitutional disturbance, and proceeds as if nothing had happened;" and farther remarks, "that there is only a feeling of tenderness in the part, and that resulting solely from the injury, and not from the operation of the union; and yet denominates this process, adhesive inflammation," when none of the results of it are in attendance.

This process is now called simple adhesion, or union by first intention. Of this kind of reparation is the healing of venisec-

mation be prevented; and the second, by causing inflammation and suppuration. After their termination, the granulating surfaces are brought together and serve as a medium of union, as in common wounds. When tincture of iodine is injected into the tunica vaginalis, it does not necessarily promote inflammation; if so, suppuration would follow. Formerly, it was the practice to use caustics for the cure of hydrocele, but cure never came until inflammation ceased.

In the treatment of ulcers, it is not necessary to produce inflammation for their cure. All that is wanted for their reparation, is to set up, or produce a new action. And it is upon this principle that the application of nitrate of silver to the larynx is so often used to cure a chronic disease which might have lasted for years.

Such, then, is the character of inflammation, as studied by the writer. It should always be considered as a disease, and never desired in the healing of any injuries. To the physician, it is the great question to be studied, and against which all his energies must be directed to avert its dreadful consequences. He who best understands its laws and nature—who can most successfully check its ravages, stands eminently higher than those around him in point of success, and will do not a little to allay the sufferings of humanity.

In conclusion, let us remark that the importance and usefulness of the medical profession will always be elevated, exactly in proportion as it understands itself, weighs justly its own powers, and professes simply what it can accomplish—whether in the practice of medicine or surgery, or both combined—an earnest and inquiring solicitude should always be kept alive, in regard to professional knowledge; and it should never be forgotten that knowledge has for its only just and lasting foundation a rigid, impartial and inflexible requisition of the truth.

REPORT OF THE DELEGATES

To attend the Examination of Dartmouth College, Nov., 1855.

To the N. H. Medical Society:—Your Delegates repaired to Hanover, November 5, agreeably to a notice from the Medical Faculty.

We found a large class in attendance upon the lectures, with a much larger number who proposed to graduate than for several years past.

Of the sixty-two of which the class consisted, fourteen, or nearly one fourth, presented themselves as candidates for a degree. These, after passing a very thorough and systematic examination in the various branches of medical literature, in which they gave evidence of correct and thorough knowledge, were admitted to the profession by the Faculty, with the approbation of your Delegates.

We are happy to be able to state that our Medical Institution at Hanover, which has for years enjoyed the unabridged confidence of a large portion of the profession in New-Hampshire and elsewhere, under the direction of its present very able and efficient Board of Directors, loses none of its former claims upon our confidence, but has added facilities and privileges that entitle it to increased consideration on our part, and offers more abundant opportunity for those in search of medical knowledge to accomplish their desires; and can not readily understand in what way any class can accomplish more, with the period of pupils limited to three years, or acquit themselves upon examination any better, than did the class of 1855. And, under its present judicious management, we most cordially recommend it to the fostering care and generous patronage of an enlightened community and a liberal profession.

J. P. Whittemore, *for the Delegates.*

THE

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-SEVENTH ANNIVERSARY,)

HELD AT CONCORD JUNE 2 AND 3, 1857.

CONCORD:
JONES & COGSWELL, PRINTERS,
1857.

THE

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

(SIXTY-SEVENTH ANNIVERSARY,)

Held at Concord, June 2 and 3, 1857.

CONCORD:
JONES & COGSWELL, PRINTERS.
1857.

PROCEEDINGS.

The New-Hampshire State Medical Society held its sixty-seventh anniversary at the Court House in Concord, on Tuesday and Wednesday, June 2d and 3d, 1857, the President, Francis P. Fitch, M. D., in the Chair. The following named gentlemen having been recommended by the Council, were elected Fellows:

Thomas W. Leach, M. D., New-Market.
Oscar F. Seavey, M. D., Hampstead.
William Henry Thayer, M. D., Keene.
Samuel A. Richardson, M. D., Marlborough.
John S. Emerson, M. D., Sandwich.
William W. Wilkins, M. D., Henniker.
Hosea H. Smith, M. D., Meredith Village.
Abiel M. Caverly, M. D., Troy.
Samuel W. Roberts, M. D., Wakefield.
John M. Emerson, M. D., Conway Corner.
N. W. Oliver, M. D., Portsmouth.
Charles W. Warren, M. D., Wolfborough.

Drs. Hubbard and Stevens were appointed a committee to audit the Treasurer's accounts.

Drs. Hubbard, Pray, H. Eaton, Manahan, S. P. French, Bell, Geo. Sanborn, and Bunton, were appointed a committee on Nominations.

Dr. Hubbard, the Committee on Surgery, read the report on Surgery, which was referred to the Committee on Publications.

At 12 o'clock, the President delivered his annual address on the subject of "The Want of Sanitary Knowledge."

Dr. Pray, one of the orators, read a dissertation on "Nursing Sore Mouth, its Nature, Cause, and Best Mode of Treatment." Referred to the Committee on Publications.

Dr. T. H. Marshall, one of the orators, also, read a dissertation on "The Contributions of Quackery to True Medical Science," which was referred to the Committee on Publications.

A communication sent to the Society by Dr. Thayer, was ordered to be read by the Secretary, and referred to the Committee on Publications.

Adjourned to three o'clock, P. M.

AFTERNOON SESSION, Tuesday, June 2d.

At three o'clock, Dr. W. W. Brown read the report on "Practical Medicine, containing a brief sketch of the Epidemic Diseases in the City of Manchester from 1853 to 1857, inclusive." Referred to the Committee on Publications.

The Committee on Nominations reported a list of candidates and the following gentlemen were elected officers for the ensuing year:

President,

GEORGE B. TWITCHELL, M. D., Keene.

Vice-President,

NOAH MARTIN, M. D., Dover.

Secretary,

HARRISON EATON, M. D., Merrimack.

Treasurer,

LUTHER M. KNIGHT, M. D., Franklin.

Councillors,

J. F. Sargent,
T. J. W. Pray,
S. Bunton,
John Bell,
S. P. French,
V. Manahan,
Geo. Sanborn,
C. P. Gage,
Wm. Laighton,
Wm. B. Stevens,
J. C. Eastman,
Hosea Pierce,
J. R. Smiley,
Oliver Goss.

Censors,

A. A. Moulton,	A. A. Whipple,
Charles Palmer,	John Wheeler,
D. L. M. Comings,	Adoniram Smalley,
W. W. Wilkins,	G. A. Phelps,
J. C. Hanson,	S. G. Wood,
George W. Mantur,	D. S. Prescott,

David B. French.

Corresponding Secretaries,

Nathan Call,	T. H. Marshall,
Levi G. Hill,	Wm. H. Thayer,
Wm. W. Brown,	E. R. Peaslee,
Wm. H. H. Mason,	John Bell,

N. W. Oliver.

Delegates to Dartmouth College,

George H. Hubbard,	Wm. P. Stone.

Delegates to the American Medical Association,

E. K. Webster,	George Sanborn,
Wm. H. H. Mason,	George H. Hubbard,
Wm. Laighton,	John Clough,
J. S. Fernald,	Josiah Crosby,
C. H. Shackford,	Wm. D. Buck,
J. C. Eastman,	Geo. B. Twitchell,
Wm. H. Thayer,	F. P. Fitch,
C. F. Elliot,	Thomas Sanborn,
Charles P. Gage,	P. A. Stackpole.

Orators for 1858,	*Substitutes,*
Sylvanus Bunton,	Abraham Robertson,
Abner Ham.	John L. Sweatt.

The Report of the Committee on Epidemics, was read by Dr. Fernald, who was appointed to that duty, and referred to the Committee on Publications.

The Secretary read the communication of Dr. Thayer, on "Obstetrics and Diseases of Women," and it was referred to the Committee on Publications.

Adjourned to 8 o'clock in the evening.

EVENING SESSION, 8 o'clock.

Met at 8 o'clock in the evening, when Dr. Hill, as Corresponding Secretary from the Strafford District, made a Report, which, after an interesting discussion, was referred to the Committee on Publications.

Verbal reports of cases of unusual interest were made by different members.

Adjourned to 8 o'clock, Wednesday morning.

MORNING SESSION, Wednesday, June 3d.

Met according to adjournment.

Dr. Gage introduced a patient, and Drs. Fernald, Hill, Sargent, Eastman, and Albert Smith, were appointed a committee to examine and prescribe for her.

Professor Peaslee exhibited to the Society an instrument designed to remedy Displacements of the Uterus, and gave an instructive lecture upon the treatment of such conditions of that organ as require mechanical support.

A case of Pregnancy with imperforate Hymen, was reported by Dr. Abbott.

On motion of Dr. Webster,—Drs. E. K. Webster, H. Eaton, J. C. Eastman, Wm. H. H. Mason, and C. P. Gage, were appointed a committee to revise the By-Laws and Regulations of the Society.

Dr. Hill introduced the following resolution, which was adopted:

Resolved, That Drs. Fitch, Gage, Webster, Knight, Robinson, and Eaton, be a committee to petition the present Legislature in relation to Sanitary and Registration Laws.

The following Special Committees were appointed:

On Surgery—Dr. A. Smalley.

On Practical Medicine—Dr. Wm. H. Thayer.

On Epidemics—Dr. F. P. Fitch.

On Publications—Drs. Harrison Eaton, C. P. Gage, and George H. Hubbard.

On Arrangements—Drs. H. Eaton, A. A. Moulton, and J. F. Sargent.

THE WANT OF SANITARY KNOWLEDGE.

THE ANNUAL ADDRESS *before the N. H. Medical Society, June 2d,* 1857, *by the President,* FRANCIS P. FITCH, M. D., *of Amherst.*

All are familiar with the fact that the degree of health, and the duration of human life, vary greatly in different localities, and in the same localities at different times and under different circumstances. What is the measure or amount of this variation? What are the causes in operation for the production of such diversity of health and longevity in communities subject to the same general influences of climate and seasons? Are those causes of a nature to be avoided, removed, or modified, by human agency? Questions like these, gentlemen, would appear to be of universal interest, and should secure the intelligent and earnest consideration of every enlightened people.

It is to be regretted that we have not in this State the means requisite for the investigation of many important questions pertaining to the public health. Statistical data and sanitary observations, which the government alone can supply, are wanting. In the year 1849 a registration enactment was obtained from our Legislature, which, though defective in several essential particulars, would, in its faithful execution, have secured information of vital importance to the people. But that law appears not to have been appreciated, for it was, two years later, so modified as to abstract whatever of vitality it possessed, and it now remains a very nearly useless record among our statutes.

Under our system, the action of government is the index or expression of the public will, and hence this unsuccessful attempt to initiate a scheme of statistical and sanitary investigation must

be taken, with other obvious facts, as indicating, unmistakably, the existence among us of general apathy upon the subject of Public Hygiene. As its claims to consideration have no practical recognition by the State, so they do not appear to be anywhere enumerated among the cherished interests of society. Other important interests have their advocates, their claims are generally presented and urged by associated effort, and where needed, the fostering care of government is solicited and obtained for their advancement,—but the preservation of the Public Health we commit to chance.

In some other sections of our own country and abroad, statistical and sanitary investigations have been extensively prosecuted during the last few years, furnishing information of great interest and value; and every new development in the progress of these inquiries has supplied additional evidence of their practical utility—in fact, of their indispensible necessity in any system which would provide for the security and advancement of the people. Persons of the largest experience in this interesting field of research uniformly bear the strongest testimony to its importance. Dr. Josiah Curtis, of Boston, whose ability and familiarity with these subjects entitle him to full credit, remarks: "No community can estimate the measure of its prosperity without taking largely into the account the sanitary and mortuary condition of its people." And, treating of the public health and causes affecting it, he continues: "As the importance of the subject becomes more known it awakens an increasing interest in the philanthropist, the political economist, and the statesman. It has a large and direct influence not only upon the happiness, but also upon the wealth of the population. In short, in whatever light we view the subject, it seems well deserving the attention and action of public authorities."*

Another of our own observers states: "No subject which can claim public attention should excite greater interest, than that of obtaining a knowledge of the diseases and causes of

* Analytical and Sanitary Observations on the Census of Boston, 1855: A city document, page 41.

death in operation among us."* And Dr. Guy, of King's College Hospital, London, says: "I do not fear the charge of exaggeration, when I claim for the sanitary question the right to be regarded THE great question of the day. Look at it as a question of humanity, and it will not suffer by comparison with the highest efforts of the philanthropist; regard it as a great act of justice, and here too, you will acknowledge it prefers peculiar claims to consideration; measure it by the rule of economy, and I hesitate not to affirm that it stands without a rival; or view it in its moral relations and reactions, and I know not whether even the great question of education will take rank before it." Such is the estimation placed upon this subject by the best informed in our own and foreign countries; and these views, thus earnestly commended to the consideration of the people and authorities, are fully substantiated by the ample array of facts now rapidly accumulating and accessible, in official registration and sanitary reports, the published transactions of Medical Associations, and the Medical Journals at home and abroad.

But this kind of literature is slow in reaching the public mind; and besides, treating only of distant labors and discoveries, it cannot impress our people with the same force of conviction that would surely result from similar researches in our own State. Moreover, with the exception of the contributions to vital statistics, obtained through registration enactments as yet in operation in a few States only, the investigations upon Public Hygiene have been carried on, in this country, almost exclusively in reference to large cities and populous places; and there chiefly have the facts and principles already established been urged upon the attention of the people. This cannot be sufficient, for there appears no reason to doubt that the same causes which originate and multiply diseases, especially those designated zymotic, in dense populations, affect the residents of country localities with diminished, it may be, but still fatal, intensity, in the production of many of the most destructive maladies prevalent among us.

* Report on Nomenclature of Diseases. Transactions of the American Medical Association, 1847.

It is to some observations upon the causes of sickness and mortality, chiefly as met with in the country, and the resulting conclusions, that your attention is now invited, with the purpose of contributing something, however humble, to keep alive among ourselves an interest in sanitary investigations.

Every physician of much experience in our country towns has recognized certain facts, which are doubtless still more prominent in the dense populations of cities; one namely, the marked variation in the form and amount of disease in the different seasons; another, the large percentage of deaths in infancy and early childhood; another, the almost constant prevalence of disease in some families, (to be found in every community) where the plainest requirements of cleanliness and purity are disregarded; and, again, the uniformly increased amount of sickness and mortality in years marked by the prevalence of epidemics. How considerable this variation is in the several seasons, or whether it is constant throughout the State; at what ages and in what conditions disease and mortality press most heavily upon our population; what localities are most subject to epidemics, how frequently such diseases are produced by controllable causes, and to what extent sickness and mortality are increased by their influence, we have no means of determining; nor can we know with any degree of exactness the frequency of occurrence and destructiveness of epidemic diseases in cities and populous places, as compared with country towns. But the entire want of reliable data upon these subjects is felt at the outset, in any attempt to study the local manifestations of the causes, which produce the successive variations in the form and intensity of prevailing disease; and without such data no intelligent effort can be made to interest and enlighten the people upon the subject of hygienic improvement. For it is obvious that the observations of no one individual in a single locality, however they may carry conviction to his own mind, can be sufficient to determine the laws of invasion and progress in disease, nor can they have weight to oppose successfully the erroneous customs and habits of the people. For these purposes an extended system of inquiry is needed; and when such an arrangement is

efficiently established throughout the State, results already obtained in other places render it certain that information will be secured of the highest importance, not to physicians only, but to all classes of the community.

Among the most striking facts uniformly recognized by practitioners in the Southern District, and in all probability in other sections, is the large proportional rate of infantile mortality. In the town of Amherst, during the last sixteen years, the deaths under one year were 11.71 per cent. of all that died in that period; and before reaching the age of five, the deaths were in the same time, 22.75 per cent. It is well known that this large early mortality is not peculiar to our population, but is exceeded in our neighborhood, and especially among the residents of the Atlantic cities. In Boston the deaths under five, during the year 1854, were 43.83 per cent. of all that died; and throughout the State of Massachusetts, during the same year, the percentage of deaths under five was 38.15.* In the large cities out of New-England, it will be seen by reference to official reports that nearly one-half of all that are born within their limits die before reaching the age of five years.

In other forms of organic life, whether animal or vegetable, it is found that early existence, the period of growth, is generally marked by vigor, capable of resisting in an eminent degree all destructive influences. Should man obey the laws of his nature would not the same be found true of our species? Or must the strange phenomenon become an established fact, that in the highest order of organic life so large a proportion are born to perish at the commencement of being? Whatever answer may be forced upon us by present experience, an examination of the subject must convince the most skeptical, that much of this excessive early mortality is produced by causes which the people, rightly informed, can avoid or remove. Alluding to the high proportional rate of infantile mortality in another State, a well-informed writer already quoted, says: "This is a striking fact, and need not exist. The causes of its existence are manifest to

* Thirteenth Registration Report, Mass.

every one versed in sanitary science, and are removable." These "manifest" causes are referable chiefly to mismanagement in the nursery, increased however in their fatal effects, in many cases, by inherited weakness in the offspring, resulting from the low physical condition of the mothers,—a condition to which, it must be admitted, the prevalent customs of society are progressively reducing females in the country, and thus assimilating them in a most undesirable respect to their sisters in the older cities, whose hopeless physical deterioration elicited the remark, some years ago, from one of the most distinguished physicians of Boston, that were it not for the prevalent custom of obtaining wives from the country, the ancient families of that metropolis would become extinct in three generations.

If professional duty, no less than considerations of enlightened humanity, would seem to demand greater efforts to diminish this unnecessarily heavy pressure of mortality upon a helpless portion of the community, have not all observant physicians noticed frequent instances of sickness and death, among other classes, as clearly resulting from inattention to the plainest hygienic requirements? In many cases the individual transgressor is the only sufferer; in others, whole families are made to experience the penalty of sanitary neglect; and, still worse, neighborhoods and entire communities are not unfrequently visited by destructive pestilence from the same cause.

On a former occasion I had the honor of reporting to this Society a brief history of severe epidemic diseases, affecting large numbers in villages situated in the immediate vicinity of artificial ponds, long flowed, but at the time of the sickness drawn off for many weeks, during the hottest season, thus exposing to atmospheric influences, at a high temperature, extensive deposites of decaying animal and vegetable substances. In one instance the epidemic was a grave and fatal typhus, which, from the beginning of August to near the end of October, affected the inhabitants of a small village, of about thirty families, situated in the vicinity of decomposing materials in the bottom of a pond, drawn off during that Summer and Fall for the re-construction of a mill. This disease, confined entirely to that

locality, and intensified perhaps by the position of the village in a narrow valley, hemmed in on either side by steep and high ranges of hills, (although the village was never before subject to fevers,) attacked, in its severer form, nearly one in five of the residents, and many others suffered in a milder way during the prevalence of the epidemic.

The same report alludes to another epidemic, in a populous village, affecting larger numbers, and more destructive,—which there can be no reasonable doubt, was caused by gross inattention to sanitary precautions. Here, as in the instance just related, the malady supervened upon the drainage of an artificial pond, long flowed and extending into the heart of the village, exposing suddenly to a summer temperature, immense accumulations of decomposing organic matters. Immediately the noxious exhalations from the reeking surfaces so contaminated the atmosphere as to be scarcely endurable by contiguous residents; and at once dysentery, with alarming prostration from the commencement, attacked simultaneously many families in the neighborhood. The disease extended rapidly, and soon became so general and fatal, especially with children, that many very wisely removed from the place.

These occurrences already upon record,* and hence intelligible with less detail than would be required for other observations of similar nature, are here recalled with the design of showing the great want of sanitary knowledge in communities among the best informed of our State;—for who, with a full understanding of the facts in such cases, can doubt the connection between the causes suggested and the suffering and mortality which ensued? And yet in both these instances, the nuisances were permitted to remain for months without interference from "health officers," or any other authority, though in one, the alarm was so great as to induce families to fly with their children from the infected district. A few individuals discovered the source of danger, but the public mind was not sufficiently informed to recognise and abate the evil.

---

* Report of the Corresponding Secretary of the N. H. Medical Society, in the N. H. Journal of Medicine, Vol. 1, Nos. 1 and 2.

Were occurrences like these rare and not likely to be repeated among us, they would merit little interest or attention; but, if observations in one section are confirmed by similar experience in other parts of the State, there can be no doubt that when an awakened and better informed public opinion shall require the much needed sanitary investigations, revelations will be made of unnecessary, because preventable, suffering and death from such causes, of far greater importance than the occasional disasters upon the railroads and steamboats, which so shock the sensibilities of us all.

But there are other prevalent causes of disease among us, of still higher consequence because more general and destructive, the existence of which is scarcely recognized by our people. They are noxious emanations for the most part limited in their origin and deleterious effects to particular households,—prolific sources of suffering and death, which would rarely be produced in this latitude, if the preservation of health received the same degree of intelligent consideration that is uniformly exercised in the ordinary affairs of life. I allude to local miasms from foul cellars and obstructed drains, from stables and enclosures for animals, constructed, in violation alike of good taste and the clearest hygienic rules, in the immediate vicinity of dwellings. Here, as on all subjects of similar nature, certainty is of course unattainable with our present means; but long continued observation, chiefly among the inhabitants of flourishing country towns, has fully established the conviction that multitudes of the sparse residents in our agricultural communities, as well as in denser populations, suffer every year from these and analagous sources of atmospheric impurity, increased in their morbific activity at certain seasons, by the prevailing custom requiring tight houses without regard to ventilation. And diseases from these causes, though constantly recurring among the most ignorant and uncleanly, are not found to affect that class alone, but the educated and prosperous in every department of life.

With the existing inattention of our people to all that concerns the preservation of health, such statements may be received with incredulity, or, if credited at all, will be considered

as applicable only to the inhabitants of large cities. Certain it is, however, that practitioners in the country are not unfrequently called to encounter the destructive effects of atmospheric contaminations, differing in no respect from such as are admitted to prevail in cities; and if time would permit, numerous cases might here be furnished from my own observations of disease traceable to such sources, with a degree of certainty so conclusive as scarcely to be questioned in any other investigation.

But proof far more satisfactory, though necessarily drawn from distant observations, is supplied to us by the instructive labors of others. In England, where sanitary science has attained the highest perfection, and where alone investigations have been made among all classes with sufficient accuracy to decide such points, "*It is proved*," by ample and incontestible evidence, "that the various forms of epidemic, contagious, and other diseases, caused, or aggravated, or propagated, by atmospheric impurities, produced by decomposing animal or vegetable substances, by damp and filth, and close and overcrowded dwellings, prevail amongst the population in every part of the kingdom, whether residing in separate houses, in rural villages, in small towns, or in large towns, as they have been found to prevail in the lowest districts of the metropolis."*

As compared with the inhabitants of the United Kingdom, ours is a recent and vigorous population, not yet exposed to the full intensity of those evils, moral and physical, which produce early deterioration and death among the nations of the old world. But with our obvious advantages of position, and the superior intelligence of our people, recent investigations in Massachusetts not only show a similar general prevalence of zymotic diseases in every section of that Commonwealth, but have brought to light the unexpected fact, that some localities there suffer as high an annual rate of sickness and mortality as is experienced in the worst districts of London; and all the data thus far attainable would appear to indicate that the proportion of sickness to health is even greater throughout New-England

* Report of the Sanitary Commission, of Massachusetts, page 46.

than with the inhabitants of Old England,* and that the duration of life here, instead of increasing, as has lately been stated, is actually diminishing.

"The extent to which zymotic," (i. e., epidemic, endemic and contagious,) "diseases prevail, is the great index of public health. When the proportion is comparatively small, the condition of public health is favorable; when large, it is unfavorable."† In Massachusetts, during the thirteen years ending with 1854, more than twenty-nine per cent. of all the deaths were from such diseases,‡—a very large proportion from a class of diseases, the causes of which the British Board of Health pronounce removable; and they state that this conclusion has, "with an accumulation of demonstrable evidence," been adopted and acted upon by Parliament, in all recent sanitary legislation.

Whenever attention is fully directed to these subjects, they must suggest to every reflecting mind thoughts of the gravest import. If a large proportion of *our* most frequently recurring and fatal diseases do thus originate in avoidable and controllable causes, produced or tolerated through ignorance or neglect of the laws of life and health, is it not more than probable that the people of this State—as of all the States—are constantly experiencing wasting sickness and a heavy mortality, *which a more general diffusion of sanitary intelligence would prevent or greatly diminish?* Wherever investigations have been made in reference to this inquiry, in communities most nearly resembling our own, all the facts accumulated, and the strongly expressed testimony of every one, without exception, who has engaged in such researches, point conclusively to a single answer.

In Massachusetts—to which reference is here so frequently made because the only State in the Union where statistical and sanitary investigations have been successfully prosecuted for a

* It is well known that many of the Health Insurance Companies here, with their rates of premiums based upon the same tables long, and still, successfully employed by the English Benefit Societies, were called upon to pay out for sickness more than was received for premiums,—and of course they have been compelled to stop.

† Sanitary Commission of Massachusetts, page 92.

‡ Thirteenth Registration Report, Massachusetts, page 159.

series of years,—active minds have bestowed much attention upon this subject. Some years ago the Hon. Horace Mann, while Secretary of the Board of Education, proposed to physicians of that State the following question: "How great a proportion of disease, of suffering, of diminution of physical capacity and of usefulness, and of abridgement of life, comes from sheer ignorance, and which, therefore, we might hope to see averted, if the community had that degree of knowledge which is easily attainable by all?"

To this question replies were received from several of the ablest physicians of that Commonwealth, including Drs. James Jackson, S. B. Woodward, Edward Jarvis, and Marshall S. Perry, all of whom express the opinion that half of the deaths, and half, or more than half, of the sickness and other physical ills, "arise from ignorance of the laws of health and life," and might be "avoided by knowledge, attention and care."*

The sanitary commission of Massachusetts, referred to above, at the head of which was Lemuel Shattuck, Esq., of Boston, in their report presented in 1850,—a work embodying more valuable information upon subjects under consideration than any other American document—remark: "*We believe that, * * * in every year, within this Commonwealth, thousands of lives are lost which might have been saved; that tens of thousands of cases of sickness occur which might have been prevented; that a vast amount of unnecessarily impaired health and of physical debility exists among those not actually confined by sickness; that these preventable evils require an enormous expenditure and loss of money, and impose upon the people unnumbered and immeasurable calamities, pecuniary, social, physical, mental and moral, which might be avoided; that means exist within our reach, for their mitigation or removal; and that measures for the prevention will effect infinitely more, than remedies for the cure of disease.*"

And these views of the immense unnecessary waste of physical energy and of life from ignorance and carelessness, are

* Sixth Annual Report of the Board of Education, Mass.

fully confirmed by the highest authorities in England. In some valuable "Conclusions and Suggestions," appended to an elaborate report upon "Diseases and Comparative Rates of Mortality," the British General Board of Health express most emphatically, a firm conviction, "*that half the attainable period of human life is lost to all who are born.*"

But it cannot be necessary to detain this audience in citing authorities upon these subjects, for they are doubtless well known to you all. If your own observations, gentlemen, and your familiarity with the important advantages obtained elsewhere from statistical and sanitary investigations, have conducted your minds to conclusions at all in accordance with my own, you are prepared to believe with me that the period has fully arrived, when some efficient measures should be commenced in this State to ascertain the vital and mortuary condition of the people. And whatever may be accomplished in that direction must receive its initiatory impulse from our profession; and especially appropriate would it be for this Society—by the distinction of our charter, nominally at least, conservators of the public health—to take the lead in any movement which may be thought expedient. As nothing comprehensive or satisfactory can be effected without the influence and action of government, the first effort should be to obtain suitable enactments for securing, by sufficient sanctions, the registration of births, marriages, and deaths, throughout the State, with a provision for their being returned to some central authority, that shall be charged with the duty of publishing well digested and classified abstracts. This has been found in other places the appropriate leading measure, both to awaken public interest, and to obtain the statistical data requisite for subsequent sanitary inquiries and improvements. An eloquent English writer, treating of the effect of registration enactments there, says: "A mass of statistics, relating to life, health, and disease, has been accumulating, which will exert, and is exerting, an immensely beneficial influence upon the physical and moral welfare of the population of these realms, and indeed, ultimately, upon every people on the face of the globe. The discoveries in astronomy have not a

more palpable application to navigation and commerce, nor the investigations in chemistry to manufactures, than have the statistics of health and disease to physical and moral regeneration."*

In several of the New-England and Middle States the importance of these investigations has been fully recognized, and movements commenced in the right direction; in some, however, efforts have proved intermittent, or been suspended as with us, while others have just entered upon the work with an earnestness that insures success. Among the latter is Rhode Island, where an admirably efficient, though economical, system of registration has recently been put in operation, which we might profitably copy. There the reports required from all the cities and towns, are prepared for publication in the office of Secretary of State, with the assistance of a committee annually chosen for that purpose by the State Medical Society—an arrangement well adapted to enlist the interest of the profession, and insure accuracy in the reports.

Gentlemen, the subject before us has increased in magnitude and consequence with every hour devoted to its consideration, and you will pardon the earnestness of my convictions if I may seem to have overstated its importance. Habits of thought, forced upon us by daily duties and anxieties, and confirmed by the prevailing tone of public sentiment, very naturally incline us to the conclusion that the appropriate, if not the exclusive, sphere of the physician, is the *cure* of disease. But is that a complete or satisfactory definition of the purposes of our high vocation? Placed by our studies and pursuits upon a vantage-ground from whence we discern dangers, imperilling health and life, which are unknown to others, shall we not prove false to the obligations we have assumed if we neglect to point out those dangers, and to show, as we may, how they can be averted? Here is presented an open and inviting field for the exercise of that active and enlarged spirit of benevolence and philanthropy, which should everywhere characterize and adorn the votaries of

* London Lancet, Vol. 2, for 1848, page 457.

Medicine; and if we would in our day accomplish anything great or noble, in what way can it be so surely effected as in thus laboring for the improvement of our race?

REPORT OF THE COMMITTEE ON SURGERY.

By George H. Hubbard, M. D.

Mr. President and Gentlemen:—In making a report on Surgery, cases will be detailed only so far as they show its present condition and tendencies and the direction in which it is making progress.

Every man who has devoted attention to Surgery for the last few years must have noticed that it is gradually becoming less of an Art and more of a Science.

By this I mean that mere manual skill and dexterity is much less prized than in years past, while what may well be called the Philosophy of Surgery is engrossing the attention of the most powerful minds in our profession.

It is a common remark that the tendency of modern Surgery is to simplify and make easy and plain what has formerly been considered intricate and obscure. To this fact I would refer in proof that Surgery is becoming less an Art and more a Science, keeping pace with Medicine which is also struggling to free itself from the useless lumber which obscures much of its simple beauty.

Science is a knowledge of the laws of Nature; Art is the power of applying that knowledge to improve the condition and relieve the wants of mankind.

Science is simple. From the every-day observation of the tendency of all bodies to fall to the earth, to a perfect apprecia-

tion of the motions of the farthest planet, is a series of gradations of the simplest character; and to him who thoroughly learns each simple fact as it is presented to his view, the whole becomes as plain, simple, and as easily understood as any fact of every-day life and observation.

As in Astronomy so in every other Science, to him who approaches it in the right direction and with proper patience and honesty of purpose there is nothing intricate or complex.

By honesty of purpose I mean a freedom from those prejudices which so naturally occupy the human mind in relation to subjects of which it is ignorant, and a sincere desire to know the whole truth regardless of what may have been taught us in earlier years; for it seems universally true that however well taught on some subjects, we find the noblest intellects entertaining on others the most frivolous and unfounded prejudice.

To become scientific then we must first be fully convinced of the Simplicity of Science, of the Universality of Prejudice and of the necessity of thoroughly knowing each elementary fact, as it is presented to our observation, in its appropriate place.

Chemistry, Botany, Geology, &c., have been reckoned as more simple Sciences, because they have had less popular prejudice to overcome than have others connected with our profession.

Medicine, with every opportunity to be (as it really is) the simplest of Sciences, has been considered the most intricate and uncertain, because from our earliest youth it is presented to our minds associated with the most varying and inconsistent prejudices.

These prejudices not only misdirect all our childish observations, but infect the *whole* of our scientific Literature; till the great labor of professional life is to sift the truth from its accompanying falsehood and divest ourselves of the constantly accumulating rubbish which obscures our scientific progress.

But notwithstanding all this, the Science of Medicine is simple and he who regards it otherwise is groping in darkness with no prospect of coming to the light.

Every person who attempts to learn any science, and espec-

ially Medicine, must throw away for naught all the crude and imperfect ideas on the subject which may have crept into his mind during his childhood and youth. Some of these ideas may be true, but are naturally so mixed with error that it is better to disregard the whole than spend the time and labor necessary to determine which is true or false.

While Medicine is purely and simply a Science, Surgery is not only a Science, but may be safely classed among the Fine Arts, and as such can be successfully cultivated only by those of delicate perceptions and well disciplined powers.

Surgery is but external medicine, and any attempt to become a good surgeon except by first becoming a good physician, is to become such, as a mechanic or artist, and not as a Scientific Philosopher.

This class of surgeons is fast passing away and with them much of the eclat which accompanied their too frequent use of the knife and saw.

Surgery, like Medicine, has learned much by a careful observation of the success of Nature's efforts to overcome the results of mechanical injuries, and Surgeons, like Physicians have learned that nature is to be interfered with less and trusted more than has been our former belief. And although often fools rush in where angels fear to tread and mar what they cannot mend, Physicians and Surgeons as a body are becoming more cautiously conservative and Medicine and Surgery are daily becoming better understood as pure Sciences, to be loved for their simplicity.

In presenting the different subjects which have attracted the attention of your reporter during the past year, such information as he has been able to gain from others will be combined, and as the simplest arrangement will commence with

Injuries of the Head. Formerly when an injury was inflicted upon the head, the first thing to be done was to bleed the patient without stopping to inquire whether there was concussion, compression, or neither, and there can be no doubt that many lives have been sacrificed to a blind submission to this

popular demand for blood-letting. We have learned, however, that the cases are few which demand blood-letting at all, and very few indeed which require it immediately after the injury.

The patient being well bled, fracture was to be diligently sought for, and no one who has read the ancient works on Surgery but must have been astonished at the barbarities which were formerly practiced in this search. On the slightest suspicion the skull was laid bare and ink poured on in the hope that it would penetrate and detect a fracture, too slight to be discovered by the naked eye. Now the patient is meddled with only so far as his symptoms point out the necessity of surgical interference, and the kind of interference which is demanded.

We have learned that in many cases the unaided powers of nature are sufficient in very severe injuries of the head, and that no true surgeon will meddle with these cases till the progress of events point out the necessity of so doing. A few cases will illustrate what we consider good practice.

Cases. — *Feb'y 5th*, 1857. I was called to a lad about ten years of age who had been run over by a horse. He was taken up senseless and carried to his home where I saw him within half an hour. He had then recovered his consciousness but was very cold and much depressed from the shock of the injury. Near the centre of the right parietal bone was a wound, caused by a heel-cork of the horse's shoe, which had penetrated into the skull to the depth of half an inch, but the surrounding bone appeared uninjured. Water was applied to the wound from which there was a moderate bleeding, heat to the extremities, and the ordinary means made use of to produce reaction. He gradually become warm, was somewhat feverish for two days, but recovered without any serious symptoms, or any other professional aid than the water-dressing to the scalp, and to enjoin perfect quietude and abstinence.

On the *20th of April*, I saw a man about forty years of age, on whose head a heavy window weight had just fallen. It glanced off without injuring the skull but had badly lacerated the scalp, which was separated from the skull for a surface two inches in length and half an inch in breadth. With difficulty he was persuaded that it must not be "fastened together," and to dress it with spongio-piline, saturated with cool water. Free suppuration took place, and for a few days he had considerable headache, but soon became comfortable and recovered without any serious symptoms.

I have received from Dr. William Laighton, of Portsmouth, the next three cases which are of interest.

On the 27*th of October*, 1855, I was called to Charles Canney, aged nine years. He had fallen into the hold of a ship, head foremost, upon pieces of timber. He struck upon the frontal bone of the cranium, through which a splinter of hard wood was forced, just above the eye on the right side. The piece was of a wedge form, ragged, and about one inch in width. It required considerable force to extract it, which was done by taking hold the projecting part; the patient remaining in a paralyzed condition.

The skull was broken into three pieces. Fracture extended from the occipital through the right parietal, half way across the frontal, then up to the coronal suture, then transversely, separating the temporal from the parietal. The upper portion of the parietal was also separated along the sagittal and lambdoidal sutures.

Hemorrhage not great. The edges of the bone in the frontal region grated freely over each other by careful manipulation. Some ecchymosis over the eye, opposite the fractured side. The face pale, eyes dull, but slowly influenced by strong light.

Stimulants were given, warmth applied externally, wound dressed. Next day leeches applied about the eye.

It was about the fourth day before he knew much of anything around him, and three weeks before he could sit up. In five weeks he could go out, wearing a loose cap.

He recovered regularly but slowly. He now attends school, and no material injury appears to have been done his intellectual faculties.

The interesting point of this case, is, to my mind, that so little injury should have been done the brain by so extensive and complete a fracture of the cranium.

1856, *March* 21.—I was hurried on board a vessel, to see a boy supposed to be dead. Andrew Moran, about twelve years of age had fallen into the hold of a new ship, from the second deck to the ballast, receiving a severe contusion at the posterior point of the occipital bone, not making a fracture, but followed with apparent effect about equal in severity and duration to the one in which the cranium was broken in three pieces, of which I have just spoken.

One remarkable point in this case which has fixed itself indelibly upon my mind, was the reaction of the vital forces; which for violence exceeded everything of the kind which I have witnessed.

The boy was removed from the place of accident to his home, without any one having much expectation that he would recover, or even be reanimated to any degree.

I proceeded to dress the wound feeling very uncertain as to the result.

Stimulants however were given or rather poured into his mouth. Hot applications made externally and fresh air freely admitted.

About one hour after the time of the accident a trembling motion commenced, denoting a reaction of the system, which increased to the most violent degree that I ever saw or imagined the human system to

be exercised with. It seemed to be the desperate struggle between life and death; life continued; the functions were resumed, and from that moment the patient progressed to full recovery.

Another case which I think might well be considered in connection with the two last, as to what kind of shock the brain will bear, and under what condition the recovery is most probable.

Daniel Haslett, aged 21 *years.* On the 18th of October, 1855, while standing on the top of a car which was but just put in motion (as I was informed) received a blow upon the back of his head by coming in contact with frame work, under which he was passing. It was thought by those about him at the time of the accident that he was not fatally injured, and he even manifested signs of life until he was nearly home, some ten miles distant.

I was summoned immediately upon his arrival. He was dead. The marks of injury were very slight externally. A little hemorrhage from the wound at the occipital bone, a little more from one ear.

The three cases of Canney, Moran and Haslett, taken together, seem to show that shocks on the head are more fatal than fractures, admitting the fractured portions are free and do not compress the brain. And blows upon that part of the head admitting fracture are less fatal, probably from the fact that the yielding to fracture renders the shock less. Though blows at the occipital region may be the more serious from their proximity to the medulla oblongata.

Dr. JOSIAH CROSBY, of Manchester, has furnished me with the two following cases.

July 4th, 1856, *at* 2, *A. M.*, was called to see George French' who had been seriously injured by the bursting of a small cast iron cannon with which the boys were celebrating the national anniversary. Found the brain exposed by the loss of skull scalp and membranes, for a surface of about two inches by one inch. The bone lost was partly from the frontal and partly from the parietal bone, and just above the temporal ridge.

The substance of the brain was much lacerated, a portion carried away, and pieces of bone, dirt, and pieces of his straw hat driven into the wound.

After cleansing the wound and removing the foreign substances it was dressed with cold water, and the boy rapidly recovered, without a bad symptom. The brain is covered by a firm cicatrix and the boy is earning his living by hard labor.

1856, *Sept.* 15. I was called between eight and nine o'clock in the evening to see Cornelius Lane, who had been struck by a slung shot. Found him lying on his back breathing slow and stertorously, pulse 56, falling to 48 at 10 o'clock, perfectly unconscious; no effort could arouse him; no cut or bruise on the skin, anywhere, but a depression in the skull for two and a half inches from the external

angle of the left eye, on a line leading from this point to the crown of the head; the depression was two inches in diameter, apparently half an inch deep, perfectly smooth, showing no discoloration of the skin. Learning that he was conscious and walked home after the injury and gradually became insensible it was evident that hemorrhage was producing compression of the brain and that trepanning was necessary. The operation was performed by Dr. Geo. A. Crosby, and a large quantity of blood was removed, found between the skull and dura mater; an artery of the dura mater bleeding quite freely was checked by tannin and sponge. The recovery was slow, but the man is now quite well.

In this connection we would mention the following case of gun shot wound, of the face furnished by ALPHEUS B. CROSBY, M. D., of Hanover.

John Barker, aged thirty, went out with a rifle on the eighth of March last, to hunt for rabbits. About three o'clock, P. M., he was returning home, but passing a house he stopped to chat with the occupant. The breech of the rifle rested upon the ground near his left foot, while both hands grasped the barrel near the muzzle.

The rifle was thus inclining inwards towards his face. A dog belonging to the premises came along and jumped upon him. As he was dropping down again, one of his fore paws struck the hammer of the lock, pushed it part way back and as he slipped off the gun was discharged.

The patient fell to the ground and the man who witnessed the accident supposed he was killed.

Being placed in a wagon he was brought home, a distance of two or three miles, and I was requested to see him at once. Although at first stunned by the accident, he was now fully conscious, and complained of severe pain in the face where he had been wounded.

There were no marks of powder upon his face, from the fact that the charge and ramrod passed through the lappel of his coat. On a line with the left angle of his mouth, and at a distance of half an inch there was a portion of the cheek two inches in diameter on which there were four wounds with pieces of ramrod projecting from each. From the midst of these wounds a contused line could be seen crossing the front part of the cheek, the middle of the left eyelid and left side of the forehead to the brim of his hat. Just at the junction of the brim of the hat with the body there was a perforation extending through the hat and through a ribbon which was tied around it.

Upon the left temple, above the concha of the ear, there was another wound. On introducing a probe into this wound it made its appearance through the scalp three inches above the point of entrance. There was likewise a hole in the crown of his hat corresponding to this wound.

From these appearances the patient and his "sporting friends" felt

confident that the ball could not have entered the face — but the ramrod being driven into the face the ball must have passed upward through one of the holes in the hat already mentioned.

On introducing my finger into his mouth I could detect no internal wound. At the back part of the internal surface of the left cheek some small bits of the ramrod could be distinguished, lying just beneath the mucous membrane.

Having administered chloroform I commenced extracting the fragments of wood which were projecting from the cheek. They were so firmly lodged that they could only be removed by the use of strong forceps. Some dozen splinters were thus removed, varying in length from half an inch to two inches. The wounds were then very carefully probed for a considerable length of time, but without disclosing anything. The wounds varied in depth from one to two inches; and in each case the probe apparently struck at the bottom against a firm muscular wall. At length I introduced into the largest wound a slender pair of curved polypus forceps, with the convexity downward and inward. These passed in two inches and then met the same obstruction as the probe had done. Happening to press the handles of the instrument inward and downward I had the satisfaction of feeling the point glide by the point of obstruction, and passing upward and outward beneath the zygoma again become obstructed at a place corresponding to a point half an inch anterior to the scapha of the external ear. The forceps had traversed a track three inches in length, having apparently passed between the masseter and buccinator muscles. By pressing the handles downward so as to tilt the point upwards I could distinguish it externally, although the skin covering it was entire and natural in appearance.

The blades of the forceps grated against a hard substance, and on opening them it could be embraced. It was, however, immovable, and although pressure externally gave indications of its presence, it was apparently fixed. All attempts to move the body with the forceps were unsuccessful; nor could any pieces of the ramrod be detected beyond the curve in the wounded track.

I concluded that the ball must have entered the face and lodged upon the temporal bone, and determined to attempt its removal by a counter opening. Accordingly a vertical incision was made three quarters of an inch in length between the scapha of the ear and the temporal artery, the pulsation of which could be readily distinguished both by sight and touch.

The coverings being thoroughly divided, the ball or rather slug was exposed to view, partially bedded in the temporal bone. A pair of strong forceps being insinuated under one side of it, with a considerable expenditure of strength it was loosened, and finally removed. It was very much flattened and grooved on the side which came in contact with the bone. The accompanying cut will show the shape of the slug when entire and its appearance when removed.

A single suture brought the edges of the counter wound together and a water dressing was applied over the whole left side of the face. There was very little constitutional disturbance. Anodynes and a cathartic were administered, and the patient kept on his back, with a low diet. The counter incision united by the first intention. Suppuration was established in the other wounds on the fourth day. On the tenth day the patient walked out, and recovered without any untoward occurrence.

A careful review of the circumstances in this case will perhaps give a correct rationale.

I suppose it to have happened after this wise :—The charge in the first instance passed through the lappel of the patient's coat, which, of course shielded the face from the effects of the burning powder. Three inches of the upper part of the ramrod was not only split but directly broken off and the fragments driven into the cheek as before described. The remaining portion of the rod must have been split into two pieces, which diverged from each other, One of these undoubtedly passed across the left cheek, middle of the eyelid and forehead, passing through the brim of the hat close to the head — the other passing outward and upward entered the scalp above the ear, glanced upon the skull and made its escape through the scalp three inches above the point of entrance and passed off through the crown of the hat. The slug following the ramrod entered one of the wounds in the cheek, previously made by a large splinter.

The direction of the rifle was such that if nothing had obstructed its progress the slug would probably have lodged somewhere at the base of the brain. But striking against the piece of ramrod already in the wound was diverted in its course, and seeking the direction of the least resistance it passed between the masseter and buccinator muscles beneath the zygoma and lodged as before described.

Considering the proximity of the rifle, and its power as a weapon, the escape of the patient was very remarkable.

As the accident occurred on Sunday the case may serve "to point a moral," even were it devoid of surgical interest.

THE TREATMENT OF UNITED FRACTURES is attracting much attention at the present time and every case which will shed light on this point should be carefully reported. The following have been furnished me by Dr. JOSIAH CROSBY.

P. A., Irish boy, of temperate habits and good constitution, 22 years of age, fell twenty feet from the staging while attending masons in rebuilding the City Hall in 1844, and broke both bones of his left leg, midway between the knee and ankle. The fracture was transverse and was dressed in the usual way by Dr. B——. At the end of three months, when I first saw him, he was walking on crutches with both bones ununited. The leg was dressed on Roe's splint, (very much like Salisbury's,) flexed to nearly a right angle with the

thigh — the thigh made fast to the splint by straps, as also the leg below the knee, and the ankle screwed round so as to make firm and constant pressure against the bottom of the foot. In four weeks the dressings were removed and union effected.

In ——, 185,— J. D., an Irishman, 24 years old, in perfect health and temperate habits had his arm caught by the cars on the Wilton Railroad, crushing the soft parts without breaking the skin, producing comminuted fracture of the humerus a little above the insertion of the deltoid muscle, splitting from the lower end of the upper fragment a piece of bone, quite one-third the diameter of the bone, one inch long which was drawn an inch above the fracture. Severe inflammation followed rendering it doubtful for several days whether the limb or life could be saved; but through the skillful management of Dr. Marshall of Mason, he was carried through this stage safely; but the bone did not unite. Eight months after the injury I first saw the patient, carrying his arm in a sling supported with splints. There was very free motion at the fracture.

The operation of resection was performed and the bones fastened together with gold wire, and the arm dressed with a gutta percha splint fitted to the arm previous to the operation and encircling three-fourths the diameter of the arm, leaving a space to dress the wound without removing the splint. The arm was kept in this dressing about three months when the wire was removed by Dr. Carr, the attending surgeon, and the union was perfect. In this case the apposition was perfect, the upper end of the lower fragment presented a superficial socket, while the lower end of the upper fragment was rounded to correspond with the cavity below, both ends being covered with articular cartilege.

Mrs. ——, Irish, aged 35, of intemperate habits, fell down the steps at the back door of the house and broke both bones of the leg, in the middle third. There was no displacement and the leg was put up in common dressings, and at the end of six weeks the patient was allowed to get up and move about on crutches. I was associated with Dr. Wheat, the city physician, in the treatment of this case and we supposed that ossific union was formed. Some four weeks afterwards we called to see how our patient was getting on and found her shoving about the house with her knee resting on a chair, and on examining the limb found motion at the fracture. The limb was put into a gutta percha splint and the patient directed to walk about the house with a cane bearing as much weight as she could on the leg. In a week she complained of pain and throbbing at the fracture. She was then directed to be kept quiet in bed, and in four weeks there was no motion and in proper time the cure was perfect.

Mr. C——, was thrown from a wagon on the 4th of July and broke the thigh bone obliquely near the middle. I saw the patient, in Dec-

ember following, with the limb shortened one and one-half inches, unable to bear much weight on the leg, had been obliged to use two crutches, slight motion with very evident overlapping of the bones. As there was evidently no ossific union, and the limb shortened an inch and a half, an attempt was made to break up the ligamentous union and bring the limb to its proper length and then perform Brainard's operation and thus effect a cure. The limb was accordingly dressed as for recent fracture and extension attempted. As much power was applied as the patient could bear and continued forty-eight hours. At this time there was no appreciable lengthening of the limb but great pain, throbbing and soreness were the result of the extension. This plan was given up and to take advantage of the inflammation thus excited, the starch bandage was applied and the patient kept quiet in bed a few weeks, and then on his crutches a few weeks, the limb in the meantime getting more and more strength so that at the end of three months he could walk with a cane, and is now perfectly cured, except the shortening of the leg.

Mrs. B——, aged 25, of good health and habits, was thrown from a wagon and fractured the humerus about mid-way; fracture somewhat oblique. The arm was well dressed and received good attention; but when I saw it just four months after the accident, there was no union, but very free motion. Dr. Brainard's operation was performed on the 21st of November, 1856, and repeated on the twelfth day after, and in four weeks union was complete.

The Method of Reducing Dislocations of the Hip Joint by Manipulation, long ago taught by Prof. Nathan Smith, and lately brought prominently to public notice by Dr. Reid, of Rochester, New-York, is becoming firmly fixed in the favor of the profession. Cases are continually being reported of its successful application. Discussion has fully proved that numerous surgeons who were students of Dr. Smith, have been for many years in the habit of reducing Dislocations in this manner, as they were taught by that distinguished surgeon. And reflection upon the philosophy of this method is having a great influence upon the reduction of Dislocations of other joints. We are learning that but a small amount of force is necessary to reduce laxations if conjoined with an intelligent manipulation properly directed to relax those muscles which are put on the stretch by the displacement of the head of the bone. New ideas and principles are daily developed, and we may safely say that on this point, Surgery is making improvement.

LIGHT AND SIMPLE DRESSINGS are fast crowding out of sight the burdensome and injurious profusion of bandages, plasters, and ointments, in which Surgery has so long delighted. Although there are many and excellent varieties of Splints in the market, it will be found that those used by the best surgeons are very few and simple.

It is found that pure water is the best evaporating lotion, whether we are treating a fracture bruise, incised or lacerated wound; its temperature always left to the wishes of the patient.

We give the following case to show that it is not always wise to perform severe operations in cases of grave injuries.

Rupture of the Perineum. Sometime during the past winter I was consulted by a medical friend who had on his hands a bad case of Ruptured Perineum. The recto-vaginal septum was torn for more than an inch from the anus.

My advice to keep his patient perfectly still, the parts clean, and her bowels confined for ten days, was strictly followed. An examination at the expiration of this time showed a perfect union, except an orifice at the upper angle of this rupture, about the size of a pea; this was touched with nitrate of silver and was closed in two weeks more.

THE PRESERVATION OF LIMBS from the amputating knife is the greatest improvement in Modern Surgery. Limbs which a few years ago would have been sacrificed as hopeless cases are now made serviceable and much better than any artificial substitutes. This is accomplished in various ways; by removing diseased bones entire, removing the diseased portions, and by carefully watching, aiding and directing the efforts of nature to accomplish the same thing.

Many cases have come under my observation in various ways, but I am unable to report them all at this time. The following case illustrates what nature will accomplish when carefully watched and slightly aided.

Ellen Ryan, age 30 years, jumped from a car which was in motion at the Depot in Manchester. Falling on the platform, she rolled off, and one foot was run over by a car wheel.

The soft parts of the dorsum of the foot were entirely jammed off; the metatarsal bone of the great toe crushed to small pieces and the remaining metatarsal bones separated from the tarsus, but otherwise

uninjured. The soft parts of the bottom of the foot were uninjured. The great toe and its fractured metatarsal bone were removed preserving as much as possible of the sole of the foot. The leg and foot placed in a carved splint which kept the foot in proper position, and the whole dressed with cold water. Profuse suppuration followed and in about a week it became necessary to remove the second toe. By keeping the bones in contact they became attached or consolidated together. The surface healed kindly, the contraction of the large cicatrix drawing the soft parts of the sole of the foot up around the edges giving it the appearance of an Indian moccasin. At the end of about nine months the foot became sound and she resumed her place in the cotton mill and is now tending four looms and earning good wages. She walks the street without a cane and with scarcely a perceptible halt in her gait. In injuries of this severity it has formerly been too much the custom to amputate; either at the leg, or by Chopart's operation.

Asking pardon for the necessarily desultory character of this report, we will bring it to a close with the following cases, kindly furnished by members of the Society. The first is furnished by Dr. William Laighton.

I was called to a child seven months old, which had been screaming violently; it was then sobbing and restless. The mother stated that it had had several such spells. I discovered no particular cause for the condition. I prescribed turpentine mixture to be followed with an opiate. A day or two after, I was called again to the child, in the same condition. At this time the mother directed my attention to the umbilicus, fearing hernia.

In examining the abdomen, I discovered a dark speck about one inch above and to the left of the navel. It proved to be an open end of a sinus. By using a probe I felt a hard substance about half an inch inside the opening. By a very little cutting upon a director I was enabled to reach the foreign body, which I extracted with a pair of fine forceps, and it proved to be a darning needle, which I now hold in my hand.

The direction of the needle was transverse and apparently between the fascia and external muscle. It was corroded and surrounded by pus, was easily extracted and the child at once relieved.

How long this needle had been there, or how it got there, no one knew.

It was probably accidentally pushed in while handling the child, and escaped the notice of the mother in dressing.

A knowledge of such cases should lead to careful examination of infants, especially in cases of convulsions or violent screaming.

Dr. Josiah Crosby furnishes the following:

Mr. M——, is now about 35 years of age, and has always been

dim sighted. About ten years since he entirely lost the sight of one eye by an inflammation which produced opacity of the cornea. Since then he has only had sight enough to get about and do coarse work, such as sawing wood, &c.

On the 8th of November, 1856, he was brought to my office in a coach, entirely blind. His blindness had come on very suddenly that morning.

On examination, I found the lens dislocated and lying in the anterior chamber. My first thought was to remove the lens by an operation, but concluded to first try to dilate the pupil with belladonna and let the lens fall back through it into the posterior chamber. Accordingly the patient was laid on his back, belladonna applied and in four hours the lens had fallen below the axis of vision in the vitreous humor and the patient could see again as well as before. A few days afterward it was again displaced merely by holding the head down to take up a stick of wood and was returned again by the same means, but with much more difficulty, producing pain and inflammation. The eye was soft and flabby, the iris very mobile; waving and trembling at every motion of the eye, however slight. The lens was of an amber color, had lost its transparency and had probably been dislocated for a long time, lying out of the axis of vision in a dissolved vitreous humor.

The following case is furnished by Dr. FERNALD, of Barrington.

One Monday morning in March, 1856, I was called to visit S. W., a little girl of six years. On the preceding Saturday, while at play in the barn, she fell into an area five feet deep, striking her head on a twenty-penny nail which projected from a plank floor, one and one-fourth inch. Being engaged at the time I did not attend till afternoon; in the meantime another physician had been called who had bled her.

Symptoms. Head hot, painful, with high febrile excitement. The wound was near the upper angle of the left parietal bone. A probe passed into the wound sunk into the brain a full inch; in circumference the wound was the size of the head of the nail. She was stunned by the fall, but soon recovered from the shock. Her friends observed the contusion which bled freely, but supposing that it was a wound merely of the scalp, did not summon assistance till Monday, when she was found in the state above described.

On Wednesday, she had a slight convulsion, which was repeated on Thursday. In the intervals there were spasms more or less severe; these spasms became more frequent, the convulsions less frequent. The spasms were confined to the right arm and leg, and recurred every fifteen minutes, through Thursday night and Friday. I was in attendance from Friday noon till Saturday morning, when they had subsided, except occasionally a slight subsultus. Her recovery in two

weeks was perfect and to this time she experiences no inconvenience from the accident.

Treatment. Leeches, saline cathartics, strict diet, cold to the head, ext. hyoscyamus, assafœtida, small blister to the nuchæ, friction to the extremities, &c.

In regard to anti-spasmodics, I incline to believe that assafœtida, if properly administered is one of the most useful; but it must be given in large doses, frequently repeated; the infusion I think is in such cases as this and many others, the most convenient. In substance it is too bulky, the tincture too stimulating. Had opium, or any of its preparations been used in this case, the result probably would have been different.

This case brings to mind one seen by your reporter several years since.

A lad, ten years of age, fell from an apple tree, a distance of about eight feet, striking his head on a large stone. He was but slightly stunned and walked several rods to the house with little assistance.

When seen half an hour afterwards he was very comfortable, perfectly conscious, suffering no pain and appearing perfectly well, except a slight coolness of the surface and rather slow pulse, indicating a shock to the system from the fall, and a slight bruise over the right parietal bone. After prescribing for this condition, and enjoining quiet and abstinence we were about leaving, when our attention was called to the patient, who was senseless and the whole left side convulsed. These convulsions increased in violence as reaction came on. As soon as seemed safe the boy was bled from the arm, and an active cathartic administered; this with cold to the head and heat to the extremities, constituting all the treatment. These convulsions continued violently for five hours when they suddenly ceased, the boy recovered his consciousness, and the next day was convalescent.

Dr. L. G. Hill, of Dover, writes me in relation to the use of needles in operations upon the lips.

"One suggestion, however, I should like to make to whomsoever it may concern, viz: that steel needles or pins should never be used in operations for hare-lip, cancer of the lip, &c.

They have been recommended, but my experience with carefully prepared steel needles convinces me that they are not as good as silver pins; suppuration or ulceration takes place about the pins sooner and they do not retain the parts in apposition as long or as perfectly as do the silver pins. It may be said, we did not secure a smooth surface upon our needles, but whatever reasons may be given I am disposed to use the silver and shun the steel pins for all such operations."

NURSING SORE MOUTH;

ITS NATURE, CAUSE, AND TREATMENT;

By T. J. W. PRAY, M. D., *Dover, N. H., Orator for* 1857.

Mr. President, and Gentlemen of the New-Hampshire Medical Society:

IT would be far more pleasing to address you at this time upon some general topic, that has a remote bearing upon the science of Medicine, than to discuss some known disease about which there is an honest difference of opinion; for, in the one, there is a chance for digression and amplification of the subject, perhaps more becoming an oration before this Society; in the other, there is no opportunity to go into the realms of fancy, or to make use of eloquent and forcible sentences, but we have to grapple with disease as it exhibits itself in our daily business; to dress up our thoughts in the simple, unadorned style of truth, in order to properly describe the operations of diseased action. Contrary, then, to the usual practice which is becoming too prevalent, I think, for scientific men, I have chosen to walk out of the customary prescribed path, and shall, with your indulgence, give some thoughts upon a complaint of some importance to the medical profession, and about which there is apparently much obscurity as to its exact nature. I do this with the hope that the thoughts thrown out here may induce a more thorough investigation among physicians in this State as to the affection.

My subject on this occasion will be "Nursing Sore Mouth, as it is called—its Nature, Causes, and Treatment."

With the exception of Drs. Wood and Bell, no author, so far as we can learn, has incorporated into his works "Nursing Sore Mouth" as a distinct or separate disease, or treated it as such.

This strange silence of standard writers and best nosologists to speak of any affection "peculiar to lying-in women," characterized by the phenomena that usually accompany this complaint, scarcely admits of a satisfactory explanation, unless it is unobserved in some localities; or if so, it is regarded as nothing else but some new development of nature to show us the incomprehensibility of her often unfathomable laws; or at most, is deemed only another form of some ailment long known to the medical world, and described under the head of those diseases with a like assemblage of symptoms, and therefore thought not worthy of special classification and description. The latter supposition is far the more probable.

Previous to the year 1830, all history is silent as to the existence of this anomalous affection. Dr. Hale of Massachusetts first published a paper upon this subject, and described it as a disease familiar with women during gestation and lactation, (See Com. of Mass. Med. Soc., Vol. 5, 1830.) Since which time, Medical Journals have occasionally contained brief, but imperfect sketches as it existed in different parts of the United States. Some of these are nothing more than a few well marked cases, either recommending some favorite remedy that succeeded admirably in the practice of the writer, or containing a few facts hardly capable of being woven into a theory, as to the origin and nature of the complaint. But from what is written, we infer, that it prevails equally in the colder climates of New-England, and the British Provinces, as well as in the warm and more genial temperature of the Southern States; that it exists in isolated cases along the coast of the Atlantic ocean from Maine to Florida; that inland towns surrounded by a humid atmosphere, away from the invigorating breezes of the coast, witness oftener its ravages; and that variety of soil and local causes act but feebly in its production, only modifying, but not controlling its development.

It would seem that some localities are comparatively exempt from this sore mouth. We are unable to find any adequate description of it as being common in the Middle States. The distinguished Dr. Dewees of Philadelphia, so well known by his

valuable contributions to the science of Medicine, never met with a solitary instance of this affection in that city. But notwithstanding this, we are of the opinion it may be sometimes observed in this section of our country, as it is known to exist in the same latitude, only a few miles distant. Perhaps it may not be attended with that severity and obstinacy with which it visits other places; hence the reason of its not being there described.

This disease is by no means indigenous to the United States. Other lands acknowledge its prevalence, but our information upon this point is very imperfect. In Great Britain, especially the northern part, it is said to be a rare disease. In Germany and France it is more frequent. "In the former country," remarks Dr. Gage,* "whole wards in some of the lying-in hospitals are crowded with women laboring under its severity." "At the Paris Hospital," writes Dr. Field,† "it is quite common in females, and the French physicians believe it traceable in some form or other far back into antiquity."

In this connection it may not be amiss to note, that for the most part, nursing sore mouth is sporadic; yet like many other diseases, it sometimes travels out of its accustomed path, and invests itself with intractable management. It is more obstinate in some seasons than in others; and yields, according to some writers, not so readily to treatment. In Berkshire county, Mass., "a mountainous region," it existed as an epidemic in 1833; and in 1836, at Middletown, Connecticut. We have an impression, that in the State of New-York, it has had a similar history. In this respect, it is not unlike the apthæ, which Van Swieten observed in his time. "In Holland," he remarks, "this malady spread itself epidemically in the year twenty-eight" of the 17th century; and yet he mentions the singular circumstance, that during his sojourn of five years at Vienna, he never witnessed a single case of apthæ, and gives as a reason for this, "that the complaint was most familiar to cold and wet climates."

Almost all American writers, who have considered this subject, have supposed it a *nova pestis*. But, in this, we believe they

* Manchester, N. H. † Bangor, Me.

are mistaken. We think it as old as the medical art. Before the article of Dr. Hale, it was, as we have before written, doubtless placed under the general head of those diseases technically called, Apthæ, and accordingly, all its literature we find credited to this class of complaints, whether rightfully or not we shall presently see. In the days of Hippocrates, an apthous state of the mouth, dangerous and obstinate, was occasionally noticed. He tells us of a nursing female, who lay ill of the fever, and "whose tongue was roughly set with tubercles, like hail." Then he speaks of a "Thrush" of a grave character, and there can be no question as to its identity, with what is called the sore mouth of nursing women. His language is, "Thrush in the mouth is bad in women with child;" that "fluxes that are apthous are a mischievous sign in women with child;" and that "a thrush of the mouth brings a flux of the bowels to women with child." Certainly this answers well the description of the "modern Thrush," which has been termed the "*opprobium medicorum*," on account of its virulence and unyielding nature, as it presents itself in some individuals. Retelaer, in his work, "De Apthis," makes mention of a singular and like affection, which he noticed "in the moist regions of Zealand." Van Swieten, in his Commentaries has discussed the question, "Why apthæ of the mouth in women with child presage abortion?" assuredly indicating that a kindred disease was not then unknown, and troublesome to women in the puerperal state. His descriptions of some forms and symptoms of the "Thrush" he met with, corresponds in almost every particular to the malady we are considering. If we come down to the present century, the opinion prevails to some extent, that it is not of modern date. In a recent conversation with the learned and venerable Dr. James Jackson, of Boston, he stated that he had frequently seen this sore mouth, early in his professional career. He began his profession in the year 1800, and occasionally noticed it from that time to 1818, when he renounced the practice of midwifery for other important duties.

Thus much is known of its general history. Let us now turn to a more particular consideration of Nursing Sore Mouth.

It has been examined by writers under the various titles of "Sore Mouth in Nursing Women;" "Stomatitis Nutricum;" "Puerperal Anæmia;" "Stomatitis in Pregnancy, and during Lactation;" and simply "Stomatitis." It is thus called, because of its supposed familiarity with females in gestation and lactation, and existing at no other time.

This disease is sufficiently identified by these various synonyms; and there is but little probability of misapprehending what is meant by writers, by the term, "nursing sore mouth," unless it be confounded with those affections controlled by similar laws of existence, and not unfrequently seen in like condition of the system. We mean, of course, those diseases described under the general head of apthæ. We propose to examine, in a manner as concise as possible, the relation of nursing sore mouth to, and points of correspondence with apthæ, the only complaint it in the least resembles, and for which it may be possibly mistaken. Dr. Ely, of New-York, remarks on this point, "We have thought in comparing the description given of 'chronic thrush' with that given by some writers of this affection, that if the terms were changed the description would be improved."*

Before, however, instituting a parallelism between these two forms of disease, we would remark, that nursing sore mouth is characterized by inflammation and ulceration, and is never so named, unless ulcers or their premonitory symptoms are observed. Dr. Knapp, formerly of Iowa, has referred to two articles; the one published by Dr. W. Channing, of Boston, on "Notes on Anhæmia, principally with its connection with the Puerperal state;" the other by Dr. M. Hall, on "Mimosis Inquieta," which, if acknowledged to be examples of this disease, would go to show, that ulceration is not always necessary to constitute this affection. Let us briefly examine these two articles. Of the sixteen cases of *Anhæmia*, reported by Dr. Channing, only one had any soreness of the mouth, and it cannot be inferred from the report of this case that it was an annoying

* Boston Medical Journal Vol. 39, Page 41.

attendant,* or formed a peculiarity in the cases narrated. In the *post mortem* examination, no remark is made of inflammation or ulceration being observed in the mouth or intestinal tube. Dr. Hall says nothing of the soreness of the mouth in his description of *Mimosis Inquieta*, which he certainly would have done, had it been a prominent symptom, as all will bear testimony, knowing with what minuteness and accuracy he enumerates the various phenomena of this class of diseases. The affection of Drs. Channing and Hall, are, evidently, *anæmia*, and were so considered. It is barely possible, that ulceration may not be visible, and still the disease exist; if so, future investigation will alone elucidate this question; the past has failed to do so.

But let us return from our digression. Are there any real distinctions between apthæ and the sore mouth of nursing women, which can be defined, or made the basis of any variety of treatment? When can the line of demarcation be drawn?

Now, to properly appreciate the difference, or similarities of these two affections, it must be done by comparing the prominent symptoms of each, course of disease, or the physical lesions of either. In doing this, we do not propose to go into an extended examination of this question, but a statement of the chief and leading points of difference and resemblance may not be inappropriate. They simulate each other in many respects.

1st. They both, as we have already seen, occur epidemically, without any discoverable connection with season and temperature. This fact is acknowledged by several writers, and it is needless to enlarge thereupon.

2d. They have the same laws in regard to location. Some places are entirely free from apthæ. It is thus with nursing sore mouth.

3d. *In their physical lesions.* Nursing sore mouth commences on the edge of the tongue inside of the cheeks, and then extending to the mucous lining of the œsophagus, and to the stomach. Apthæ also attacks the same parts. Here then is no disagreement among writers, who have described the pathology of both complaints. They are said to differ, if at all, in the

* See New-England Medical Journal, Vol. 1, page 157.

extent and severity of the lesions. The former is supposed to be more severe in the character of the ulceration, than common apthæ.

They do not affect the mouth alone but similar lesions are discovered elsewhere. Dr. Brainard,* President of Rush College, says he has met with the same kind of ulceration in the genital organs, with white ulcerated patches about the orifice of the vagina and urethra, which caused great smarting on urination. This state of things continued in one female during the first and second lactation and pregnancy. Its second reappearance was in so severe a form as to endanger her life and render necessary the induction of premature labor, when it ceased there, and attacked the mouth. This writer has reported several cases attended with the same pathological appearance. Van Swieten also was a witness to the same state of the parts in apthæ. He says, "I have sometimes seen ulcuscules in the genitals without any symptoms, that would give reason to suspect anything of a venereal disease; and they have been at first troublesome by their intolerable itching, afterwards extremely painful, with a swelling of the labia; and I have found them exactly answerable to those ulcuscules, which bear the name of *thrush*, and are by the ancients described and called by the name of *apthæ*." Hippocrates saw the same occurrence.

4th. There is a similarity among writers in the description and resemblance of the pustules, or ulcers; and like discrepancies, as to the actual state of the diseased parts. This must be noticed, as one investigates, and compares the language used in the delineation of the various phenomena of both complaints. For instance, Dr. Hale says, "nursing sore mouth commences on the edge of the tongue, with a hardened pimple." Dr. McGugin, of Iowa, and others affirm, that round whitish or yellowish vesicles, which become the foci of a diffused inflammation are first seen. Dr. Taylor of Florida, describes the state of the parts thus: "The tongue is covered with small, white pustules, closely connected together." Others, because they do not have the opportunity to watch the progress of this malady

* See Boston Medical Journal Vol. 41, Page 373.

in its earliest stages, attest that ulceration with an inflamed condition of the entire mucous membrane of the mouth is the exact appearance. Now let us look at the description of common *apthæ*.

Dr. Wood describes them thus: "The vesicles are small, oval, or roundish; white, or pearl colored." They are first observed on the edge of the tongue. Andral divides them into three species; the popular, the vesicular, and pustular. Billiard, into two stages. The first consisting of small, white milary tumors; the second of superficial ulcers. Gardien denominates them tubercles. Others say that pustules and ulceration are seen at one and the same time. These vesicles, says Dr. Condie, "enlarge and are surrounded by a circle of inflammation," just what happens in nursing sore mouth.

Again, the vesicles in both are often distinct, scattering, and sometimes numerous and confluent. When distinct in either affection the symptoms and ulceration are of a mild character, and usually confined to the mouth; but when confluent they assume a greater degree of severity and obstinacy. We will briefly condense the excellent description of M. Guersent, on this latter kind of apthæ, and then we can more readily see the points of comparison with, and the likeness to the disease in question, especially when we speak of its symptoms.

This species of apthæ is painful and obstinate, and not of frequent occurrence. At the Hospital de la Materneté of Paris, it is rarely if ever seen. M. Cruveilhier never observed it while he had charge of that Institution. It begins with chillness, headache and fever, which often moderates without entirely ceasing, even when the vesicles are all developed. These vesicles extend from the mouth to the fauces, and are said to reach the stomach, producing severe diarrhœa, and abdominal pains, and from their severity, sometimes terminate in death. Food when taken causes anguish; and deglutition is more or less difficult by reason of the large number of pustules, ulcers, and surrounding irritation covering the roof of the mouth, tongue and fauces, "Ces pustules sont quelquefois, si nombreuses qu' elles parasaint comme confluents. Elles simulent assez bien

l'eruption varioleuse dans le cas aù elle occupe la bouche, le voile du palais, et une partie des fosses gutterales." Dr. Wood remarks, "This variety occurs most frequently in adults, and is said to attack preferably women in child-bed." What then is the difference between this kind of apthæ, and nursing sore mouth?

Once more, the vesicles ulcerate in both affections, and the ulcers are of an oval form with now and then ragged edges; and over their surface is generally thrown a whitish or yellowish film. Often they are of a raw and inflamed appearance. Their size varies, but they are nearly the same in every respect. In nursing sore mouth, they are sometimes about as large as "half the size of a three-cent piece to that of a fifty cent piece."–(*Dr. Judkins.*) Dr. Hale states, "I have seen considerable loss of the substance on the edge of the tongue." Dr. Hall relates an instance of apthæ where a like circumstance was noticed. In some patients, several small ulcers seem to coalesce, and constitute one large ulcerated surface.

5th. There is a striking coincidence, as regards the kind of constitutions in which both complaints are found. It is confessed by all, that apthæ are present equally among the feeble in health, as well as the most robust. When, however, they are seen in adults, they are more frequently among persons of a scrofulous diathesis, or those constitutionally delicate; in children, among those of a relaxed habit with the predominance of the lymphatic system,"—(Condie.) It is in this latter class of subjects that the disease is best studied, because apthæ are oftener distinct and of a milder character in adults.

Nursing sore mouth, also attacks chiefly those of a lax fibre, thin in flesh, pale, and of an anæmic appearance.*—(Dr. Judkins of Ohio.) Dr. Sumner, of Connecticut, thinks those inclined to phthisic pulmonalis, are its most frequent victims. Others believe it occurs oftener in persons of scrofulous habits. Dr. Backus says, that "women of a vigorous constitution and good general health are as subject to it as the most feeble. Prof. Ware, of Harvard University writes, "I have not thought any

* See N. Y. Journal of Medicine, Vol. 14, January No.

particular constitution is more exposed to this complaint than another; but those women who have any exhausting causes operating upon them during pregnancy are most liable." It is the writer's experience that the disease seizes the most feeble in health, as well as the strongest. We know of one female of robust and plethoric habit, possessing, seemingly, all the lineaments of perfect health; vigorous in mind and body, and capable of great endurance, who has borne two healthy children, and, at both periods, was compelled to wean her child, or die from the prostrating effects of this complaint. The sister of this lady, equally strong and healthy, had also this soreness of the mouth.

It is not to be understood, that all persons whose constitutions are enfeebled will be attacked with an apthous condition of the mouth, for this is contrary to experience. A large majority of women go through pregnancy and lactation without any touch of it. Its existence is only an exception to a general rule. Both apthæ and nursing sore mouth attack whole families. If one is afflicted, another will be liable, although it may not be at the same time. We have noticed children of the same parentage to be thus affected during gestation and lactation.

Thus far we have referred to a few of the more prominent resemblances of these two affections; let us now consider the supposed points of difference, for they are thought by many to be unlike.

1st. *In the color of the tongue, lips—the inside of the cheeks—the external appearance of ulcers and even the whole lining membrane of the mouth and fauces.* These are of "a peculiar red or deep pink color," says Dr. Backus, and others. This is deemed a distinguishing mark or trait of nursing sore mouth. But notwithstanding this, Van Swieten, and many other authors describe some kinds of apthæ, not familiar to females alone, and not dissimilar to the phenomenon above represented. Apthæ occurred in their practice "flame colored, *yellow, livid, or even black*,"* arising from and depending upon a difference in constitutional habit of the person affected.

In the next place, they are believed to be distinct, because,

* See Van Swieten's Commentaries.

nursing sore mouth is said to be a disease incident to women alone during the last stages of pregnancy, and the process of lactation, while apthæ are noted in almost all stages of life among males as well as females; the young as well as the old. If this distinction could be made to appear, it would go far to prove their dissimilarity; but here, unfortunately, there is not consonance of opinion among writers, some affirming one thing, and some another.

Dr. Backus is quite positive that there is a marked difference, and writes thus of nursing sore mouth: "It is in the first place confined to females, no man ever had it, or ever will; it attacks those who are nursing, or those who are advanced to the last stages of pregnancy." Dr. Hale confirms this statement. Dr. Taylor remarks, "In an extensive practice of seven years, I have never met with a single case of sore mouth in man or in woman who did not give suck, which was in the least analagous" to the species now under consideration. But all observers, who have had equal opportunities to notice the peculiarities of both complaints are not thus agreed. Dr. Knapp thinks it is not an affection belonging to women alone—"We have repeatedly seen men, and boys, subjects of this complaint; also girls as well as suckling women."* Dr. Shanks, of Tennessee, says that at Memphis, chronic diarrhœa in humid miasmatic localities presents in males many of the general symptoms of this sore mouth accompanied with the peculiar raw, clean and red tongue, (sometimes an attendant) together with ulceration of the mouth. Dr. Ely of New-York speaks thus: "It is believed that a similar affection is found in the male sex."

In this diversity of opinion, it is impossible to arrive at the true answer to this question, except by future observation. We can conceive, nay, it may not be improbable, that the view of Drs. Knapp and Ely may be correct, if gestation and lactation act as predisposing causes, only so far as they tend to bring the female constitution to a state favorable to the development of an apthous condition of the mouth. We might infer from analogy, also, that this would take place, provided a like pathological

* N. Y. Journal of Medicine, Vol. 14.

condition could be induced in the male. Perhaps the reason why the disease has been judged to belong exclusively to females is its frequency with this class of persons. Their habits, and often unnecessary confinement, in secluding themselves from the invigorating and healthful influences of air and exercise strongly predisposes them to be its subjects. In addition, there are many depressing influences brought to bear on the naturally delicate female constitution, which males are entirely exempt from, or can more readily withstand; hence their more frequent immunity from this malady.

Doubtless the comparison might with profit be carried farther, but this much must suffice. The symptoms of apthæ are not very fully delineated, as they exhibit themselves in adults, and it is for this cause we are unable to longer pursue the points of identity. Whenever they have been seen, they have been regarded as a local affair, or at least, only a complication of some other affection, and hence but little has been written thereupon. It is in works upon the Diseases of Children, that we find the most reliable descriptions of common apthæ. We shall, however, endeavor to indicate other striking similarities as we proceed in the enumeration of some of the usual symptoms of the sore mouth of nursing women.

Symptoms. Before the appearance of what constitutes the peculiarity of this complaint there is what may be termed the formative or irritative period.* The system is brought by a train of circumstances into a condition adapted to its existence. The digestive apparatus is enfeebled—assimilation imperfect; the functions of the liver are deranged; and the bowels constipated. There is often a vague uneasiness in the epigastric region, attended with acidity, flatulence and abnormal secretions. "Vomiting, which is usually common in the morning during gestation is seen not unfrequently after laying down at night." In addition, one will notice a general restlessness, or malaise, tendency to low spirits, a feeling of lassitude," and debility, and indisposition to exertion of any kind. Some kinds

* The same symptoms, as occur during this period, we have observed in common apthæ.

of food create so much pain and distress as to require the administration of an anodyne. This was quite noticeable in a strong, healthy female, who came under our observation. In the meanwhile, the appetite is variable, but in a very large number of cases morbidly ravenous, and seemingly unable to be satisfied.

The disease is sometimes connected with, and indeed preceded by sore nipples, by an eruptive affection of the skin and especially the tarsi, and sometimes the corner of the lips, and external labia. There are not a great many cases, however, where these phenomena are observed.

Those who are accustomed to this complaint are aware of its approach by the loss of the sense of taste, especially that of salt. The food is destitute of its usual relish.* Dr. McGugin observes that even before its inception there is a sensation of sinking, and depression, together with prostration. The progress of the attack is usually gradual, and is marked by successive stages. But some have found a different experience. Dr. Backus, for instance, says, "the accession of the disease is often very rapid from apparent health. It comes on violently in the evening, while during the day there had been no approach of it." Others have not met with the same suddenness of attack.

The first prominent symptom which attracts the notice of the patient, is a scalding sensation, similar in feeling to that produced by hot fluids when taken into the mouth. In looking at the irritated part, one will find heat and inflammation of the mucous membrane. Sometimes a general soreness of a considerable portion of the mouth without the existence of vesicles or ulcers. This may continue for an indefinite length of time. Now and then is noticed a different state of things. Red spots on the sides of the tongue come forth, together with a few whitish vesicles. These may be distinct, or confluent. Accompanying these the whole lining membrane of the mouth, the lips and tongue are in a highly vascular, and in a congested state, resem-

* Any one who has had apthæ will bear witness that the same sensations obtain. In the case of the writer, he has had loss of taste, and the peculiar scalding sensation of nursing sore mouth which we shall presently describe. Other medical men with whom we have conversed confirm this.

bling in some respects the lips of patients in an anæmic condition, or rather those whose blood is not sufficiently oxygenized. The small capillary vessels are burdened with dark, venous blood. The tongue is often of a smooth, polished appearance, free from coat, slightly swollen, and "early in the attack along its edges may be observed little granular elevations, extremely sensitive." The sufferer complains of pain in some parts of the mouth, as "if a thorn were in the affected part." Little vesicles soon become the centre of an inflamed circle, which, when the least particle of food or drink, except of the blandest kind, touches, causes extreme anguish. The lymphatic system is unduly excited, and the salivary glands pour forth large quantities of saliva, often of an acrid nature. So severe is the disease in some individuals, that the lips become tumefied, and over which are continually running the secretions of the salivary vessels.

Even all this while the appetite remains often in a good condition; but the patient loathes all nourishment, on account of the extreme sensitiveness of the inflamed vesicles and the surrounding irritation.

If the vesicles be few, the disease is easily manageable, and will yield to suitable remedies; or at least will be kept in abeyance, allowing the mother to nurse the child. Oftentimes, a gentle cathartic operates to check or rather modify its character and limit its progress. On the contrary, if constipation predominates at any time, there will be an increase in the intensity of the symptoms.

The complaint, not unfrequently, unless under the influence of curative treatment, assumes a far different and graver aspect. Ulceration begins and spreads, especially in lax and strumous habits, over a larger surface. The vesicles multiply, and form, with their ragged borders on the soft parts of the mouth,—then pass to the fauces — into the posterior nares, along the bronchiæ, and involve the lungs in an irreparably diseased condition. As we have before said, they creep down the mucous lining of the œsophagus to the stomach, and then induce a new train of symptoms. The soreness of the mouth by this extension of ulceration does not abate one particle, but continues on with the same obstinacy.

When the ulcers reach the stomach, one will notice a slight tenderness of the abdomen in the region of the epigastrium; more prostration; swelling of the extremities; "a dark, crescentic circle under the eyes," and an anxious look of the countenance, which is often remarked in severe cases of nursing sore mouth. Now the suffering is great for the surfaces, if the ulcers are preternaturally endowed. Diarrhœa sets in and becomes an obstinate symptom. The discharges are free and copious, of a thin and watery consistence,—sometimes of a darkish color; and in more protracted forms, ash-colored, or inclined to light; fermented and frothy. Dr. Judkins says that "floating flocculi, of a mucous appearance may be frequently seen after a recent evacuation of the bowels." But the diarrhœa may not be persistent, for it often alternates with costiveness. In such instances, the soreness of the mouth is intensified with an increase in the depth and extent of the inflammation.

The exhaustion from this diarrhœa is often harrassing to the patient, and next to the ulceration is one of the most troublesome symptoms of this affection. This together with the want of sufficient nourishment often debilitates to an alarming degree. The countenance, and in fact, the whole exterior of the patient bear impress of the extreme severity of the lesion, which is thus warring upon the vitality of the system, and unless checked in its death-work, will terminate in hopeless recovery. The body becomes emaciated; hectic fever ensues, and if the person attacked has a predominance of the lymphatic system, or is of a "strumous diathesis, tuberculosis will be developed with cough, hæmoptysis perhaps," and other fatal symptoms close the scene.

While nursing sore mouth is in its incipient stages, there is often considerable feverish excitement, together with dryness of the skin, and an elevated pulse. The mind is irritable and despondent and there is an undue excitement of the nervous system. Sometimes the disease passes from the acute to the chronic form—the fever subsides, and the appetite, unless diarrhœa is an attendant, is improved. When, indeed, any exhaustive drain is going on in the system, then, some febrile symptoms may remain to weary out the strength of the patient.

There are some cases of nursing sore mouth where it seems to terminate in confirmed anæmia. One will find in this class of patients, extreme paleness of the face and lips; palpitation; dyspnœa; loss of appetite; vomiting when the least food is taken; throbbing in the head; vertigo on assuming the erect posture; intolerance of light and sound; wakefulness; starting during sleep; paleness; transparency of the ears and fingers; great and alarming oppression about the chest; great nervous irritability, and scanty urine with a whitish sediment. It is needless to add, that these are extremely critical cases.

In this connection, it may be as well stated, that a large majority of cases are not accompanied with such virulence, especially if under the control of judicious treatment. But whenever ulcers occur, it is a cause of solicitude, and needs, especially in some constitutions, the fostering care of nurse and physician, lest the complaint proceed to uncontrollable bounds. Some persons are so predisposed to this affection, as to never go through a single lactation without being attacked. Even when a female once affected, has not borne children for quite a number of years, and on becoming pregnant, it will again appear, and so on to the end of child-bearing. The mucous membrane of the mouth in some tends strongly to commence a new ulceration and derangement, however slight the exciting cause, Again, there is another thing worthy of note. In the more stubborn cases, when the patient is unable to take scarcely any food, on account of the soreness of the inflamed vesicles, and ulcers, still the secretion of milk continues abundant. The child is generally healthy, and apparently derives sufficient support from its mother, for growth. Indeed, in some persons, we have remarked that where the stomach could not retain its food; the desire for aliment almost destroyed; diarrhœa exceedingly exhaustive; and the patient seemingly not having sufficient strength to raise her head from her pillow; even then the infant did not apparently suffer from the parent's debility. But there are instances, where, if this disease is permitted to continue for some weeks, the secretions become morbid, the milk fails, and the child will be materially affected by a too long continuance at the breast. Its digestive organs will be impaired, or some serious difficulty follow.

Causes. One of the strongest predisposing causes of nursing sore mouth is a naturally delicate and enfeebled constitution, accompanied by laxness of muscular fibre, and a deficiency in the strength and activity of the vital powers. Whatever depressing influence, therefore, that may operate to deprave the system, and weaken its hold on life, will contribute to the existence of this disease. Persons, then, who have been often bled, or confined to low and indigestible diet, or weakened by continued diarrhœa, or some exhaustive sickness, are well fitted to be its subjects. Anxiety, alarm, or any mental disturbance, will sometimes indirectly produce it. Derangement of the alimentary canal may be regarded as an occasional cause, for, we have seen that the complaint is often preceded by such derangement; and in its treatment we shall find that the state of the *primæ viæ* influences to a great degree the course and activity of the irritation in the mouth.

In addition to these, and closely connected therewith, are other indirect or disturbing causes which exert an unhealthy influence over the digestive and assimilative organs. These are a want of sufficient exercise, confinement in close and ill-ventilated houses, some particular kinds of food when the stomach is in a weakened state. We have met with one patient, where molasses gingerbread would excite all the symptoms of nursing sore mouth. Dr. Watson, in speaking of apthæ, says: "They seem to depend upon the mere derangement of the stomach. A nobleman, who is a *bon vivant*, can never eat shell-fish without finding within two hours afterwards, that his mouth is full of apthæ. Even lobster sauce will serve him thus."

But, as we have before intimated, all the above things being combined, do not affect some individuals, as far the greater proportion of females pass through all the stages of the puerperal state with perfect immunity.

There are other causes about which there is not much dispute that seem to have an agency in generating this malady. In localities where "marsh miasm" prevails this operates upon the system to invite into activity this sore mouth. For proof of which, we refer to the article of Dr. Shanks, American Medical

Journal, Vol. 4: 1842. The facts related by this gentleman would certainly indicate, that miasma was a powerful predisposing cause, or how can it be explained, that formerly "few women escaped the disease in some degree during lactation," but now, since the country around Memphis has been more exempt from intermittents, "this affection has become more rare, attacking those chiefly unacclimated, of feeble health and of leuco-phlegmatic temperament."

In addition, there are gestation and lactation, which are confessedly causes that have great power over some female constitutions, by their capability of keeping up in the system a state of irritation. Some who regard nursing sore mouth as a peculiar affection, find its principal cause in these two conditions of the system. This hypothesis, for it is nothing more, would really make no difference between health and disease. It would create gestation and lactation at the same time, physiological and pathological conditions. These states of the system may predispose to this affection, but nevertheless, are natural states, and analagous in this respect to diversities of natural constitution and acquired habits of body; and no more than the latter constitute a pathological cause. We are brought to affirm, that a state of health is a state of disease. There is no escaping the paradox except by saying that lactation is a diseased condition. Besides it is well established, that these two combined do not produce this sore mouth in nine-tenths of those females bearing children—a fact which goes to disprove the position taken.

But it is objected to this view of the subject that this malady is incurable in the hands of some, except by weaning. This objection does not accord with the general experience of physicians, for some have found that it can be cured by the use of proper remedies. And it is well known, that there are quite a large number of cases, that either are curable, or at least, are not of so grave a character as to require the suspension of nursing. It would be indeed surprising, if there were no stubborn instances of this malady, that hold out against every means of treatment; such is the fact with other diseases, and why not with this? But then it cannot be said, if it is sometimes obsti-

nate, that the disease is peculiar to lactation, for other ailments are modified by these natural states, or conditions.

But further, if this is a correct solution of the phenomena of nursing sore mouth, why is it, that it is always seen in every subsequent pregnancy and lactation of the same individual, and never at any other time? Our answer is this: lactation and gestation serve as exciting causes to bring the disease into being, just as the "lobster sauce" in the nobleman, spoken of by Dr. Watson, did in producing apthæ. The same principle is involved and the same explanation can be given to both.

Some, in searching for the nature of nursing sore mouth have supposed it was in some way related to anæmia. Now that these two diseases are really different, can, we think, be sufficiently demonstrated. The one may run into the other, but they depend for their existence upon different causes. There is no doubt, but that anæmic persons may be more liable to this sore mouth, than persons perfectly healthy. They are just as subject to other diseases, as they are to this. But it cannot be said, on this ground, that anæmia is the pathological cause. The fact that this latter complaint occurs as an epidemic, and is known to be long absent from certain localities, where it once frequented, while the causes of anæmia remain; and the fact of its non-occurrence, at all, in some countries, and not in the practice of physicians, like Dr. Dewees, (whose practice cannot be reasonably supposed to have embraced no cases of weak, relaxed, anæmic females,) totally disparages the idea of anæmia in any sense constituting the essential, or pathological cause.

Others have thought that this disease was occasioned by a loss of some particular principle of the blood. The small number of females subject to this complaint is scarcely reconcilable with this supposition. Then, we could not exempt from the pernicious influence of such a cause, the vigorous in health and plethoric; and with still more difficulty can we afford immunity to those strongly disposed from natural delicacy of constitution; and superadded anæmic, exhausted, and debilitated state of the system—many of whom, nevertheless, escape the disease alto-

gether. This could not be possible were the foregoing hypothetical cause the real and essential pathological condition.

A modern theory has been started by Dr. Knapp, denominating this malady "land scurvy." This gentleman grounds his reasons therefor, on the treatment generally pursued for its permanent cure. We cannot agree with this hypothesis, because an apthous condition of the mouth cannot be traced to such a source, as is universally admitted to be the cause of scorbutus, viz: a deficiency of vegetable diet, or a surplus of salted provisions. On the other hand, there is not one case in a thousand, where there can be any deficiency among women in this kind of food. We have known females, who are in the daily use of a generous vegetable diet, wanting in no single ingredient to constitute it essentially anti-scorbutic, and yet these very persons were sorely afflicted with ulceration of the mouth during gestation and lactation. In this connection we would remark that "the peculiar affection" of Dr. M. Hall, to which the writer refers in support of his position, no more answers the description of scorbutus, as given by standard authors, than the several kinds of Mimoses of Dr. Hall does to that of nursing sore mouth. It has none of the antecedents of scurvy.

Rejecting, then, these several theories as constituting the real, or essential cause of this affection, we are led to inquire, what is its nature, or what is the disease itself? We answer, that with our present information on this subject, we must pronounce nursing sore mouth and apthæ alike. Upon their physical histories we cannot affirm them different. Their resemblance both in their rise and progress would tend to show, with no small degree of probability their identity. This identity, however, resting upon this theoretical aspect of the case (which seems to us, nevertheless, the just interpretation of all facts known relative to this disease) may be held provisionally, until it be tested by future investigation, as regards the physical distinctions of the disease, by which such distinctions can be established.

We regard this disease as local in its nature, occurring as an epidemic and sporadically, just as all epidemic diseases do. It is a frequent complication of idiopathic fevers and disordered

states of the digestive organs. But the reason why vesicles and ulcers should be first seen in the mouth, or elsewhere we are unable to explain. The observations of Dr. Hale upon this point are not inappropriate here. He says: "From the great liability of the stomach to be disordered in this complaint, and especially from the fact already mentioned, that those remedies only are of permanent benefit which act upon the stomach, it should seem that it is chiefly through the intervention of that organ that the disease is produced. We know of no direct sympathy between the parts in which this affection first appears and the mammæ; while the stomach is very closely connected with the mouth and fauces on the one hand, and with the uterus and all other organs associated with it on the other."*

Treatment. We propose to give a synopsis of the treatment generally adopted by writers upon this subject, before we go on to speak of what we deem the best means of medication. It will be seen as we pass, that there is an agreement in many respects in the kinds of medicines used, also in the recommendation advised.

Dr. Hale thinks emetics useful in some cases to produce a powerful general effect upon the system. His chief reliance, however, is upon tonics; those which give vigor to the stomach, such as some of the preparations of bark, quinine, porter and ale. When porter stimulates too much, he gives a fermented solution of tartaric acid and sugar—an agreeable drink, as it contains a large quantity of carbonic acid.

Dr. Backus, after trying various doubtful remedies, has hit upon the following mixture, consisting of carbonate of iron, rhubarb, aloes, ipecac, Sap. Hispan. This is made up into pills; two of which is given twice or three times a day. This gentleman has found this preparation successful, with astringent washes, in many cases.

Dr. Shanks,—"In the most robust and plethoric, the feverish excitement must be reduced by bleeding," followed by alter-

* It will not be expected that the writer should here go into the nature of common apthæ, for this has been done in extended treatises, although there is much more of theory than fact in many of the writings upon this class of diseases.

atives and laxatives, such as blue moss, calcined magnesia, and rhubarb in small doses. In those of more feeble health, when there is but little feverish excitement, he prescribes as a tonic and laxative, a combination of blue mass, ipecac, carb. ferri., and aloes, in proportion to suit the case under treatment. Dr. Christian, one of the oldest physicians of Memphis, Tennessee, places his trust in small doses of ipecac, alone.

Dr. Taylor does not depend upon the "partial success of tonics," but has given, with benefit, broken doses of sulphur and cream of tartar, as the only internal treatment. In patients exhausted by the effects of the disease, he thinks these should be carefully prescribed, perhaps only for costiveness; and, in addition, he advises tonics, such as cinchona, elixir vitriol, porter, &c.

Dr. Ely prescribes an alterative course, and uses both for a wash for the mouth, and internally "ido-hydrargyrate of potash." His confidence in the efficacy of this medicine increases with its use. We have met with other physicians who praised its virtues.

Dr. Brainard treats his patients with a general course of tonics, nourishing and abundant food; good beer, ale or porter; iron, and vegetable bitters. As a local wash—fuming muriatic acid applied to the ulcerated parts.

Dr. Knapp thinks the disease to be of a scorbutic nature, and addresses for its cure such medicines and such diet as are usually considered anti-scorbutic.

Dr. Judkins, after the administration of bi-carbonate of soda to correct the acid and acrid secretions, gives the following formula:

"℞	Nitrate of silver,	gr. x;
	Denarcotized opium,	gr. iv;
	Gum camphor,	gr. v;
	Di sul. of quinine,	ʒi;

M. ft. in pill. No. xxx; one to be taken three times a day."

This pill has succeeded well in a large number of cases.

Dr. Hall of Tennessee.—A nutritious diet; exercise adapted to the strength of the patient; and attention to the healthful

function of the skin. Quinine, chalybeates, the mineral acids, and cod liver oil, are chiefly relied on.

Dr. Ellsworth, of Connecticut, gives bark with lime water; carbonate of iron, soda, and particularly porter. "Almost everything tonic is useful."

Dr. Holt thinks hydriodate of potash in five-grain doses, three times a day, as near specific as anything can be.

Dr. J. Y. Ware finds Griffith's myrr. mixture an infallible remedy.

Prof. R. D. Mussey, of Cincinnati, in a letter to us, says: "I have witnessed very satisfactory effects from the internal use of cubebs rubbed up in sugar, and sometimes with carbonate of ammonia mixed with syrup or molasses into a confection. A medical friend here in whom I have confidence, has seen four cases cured under the use of cod liver oil."

Such, in brief, is the method of treatment pointed out by physicians, who have written upon this subject. Our experience has been, that the treatment should be judicious, rational, and founded upon scientific deductions. We can perceive no reason why an exclusive line of practice should be here pursued, while a different policy is carried out in other diseases. It is, then, impossible to lay down prescribed rules or formula for all occasions; and if this could be done, it would subject the science of medicine to no higher authority, than the merist tyro in quackery can boast of his pretended art. Such a course would require that the disease should be always the same; that there be no variance in the manner of attack, and course of the complaint, but such is not its ordinary history. Physicians will acknowledge here as elsewhere, that different constitutions require different medical means to restore to health. Tonics may best serve in one class of subjects, while entirely opposite medicines will better succeed in another iustance. No two cases are precisely alike, and therefore, not calling for similar modes of treatment.

The first thing that should be attended to, is the state of the stomach. If there be acidity, small doses of magnesia, or bicarbonate of soda, once or twice a day, or sometimes the vegetable or mineral acids will serve to correct this state. If con-

stipation predominates, some mild laxative, such as a moderate purge of calomel and soda; seidlitz powder; castor oil; sulphur, and cream of tartar will avert this difficulty. A gentle evacuation of the bowels is desirable in the earlier stages of this complaint, because it exerts a curative influence over the sensitiveness of the ulcerated surface. A prominent point in the treatment is to keep the bowels, especially in the commencement of the disease, in a soluble condition.

Active and irritating purgatives should never be administered on account of the liability of the mucous membrane of the intestinal tube to ulceration, and severe diarrhœa.

The bowels being cleared, means should be directed to subdue the feverish excitement, existing in some patients. Generally there is no difficulty in effecting this, unless there be some constitutional irritation occasioned by the existence of some other disease lurking in the system. There are not many cases where venesection would be advantageous; it might be indeed dangerous to practice it; still we have no doubt that it might be tolerably well borne in the more robust and plethoric, and even prove profitable. But as a general rule it is contra-indicated, and will rarely be found useful. It is far better, in uncomplicated cases, to use other medicines which eminently possess the qualities of lowering the pulse, and allaying inflammation. Sometimes a gentle emetic, especially when the stomach is disordered, will be serviceable. For this, ipecac. is far the best.

After the feverish state of the system has subsided, or even, when there is slight exaltation of the pulse, we have given internally the following mixture. This has been used successfully for the last nine years, both in apthæ, and nursing sore mouth, and with like results. Its virtue, doubtless, lays in its tonic qualities:

℞	Myrr,	ʒj;
	Carb. Potass,	gr. xxx;
	Rose water,	℥ iij;
	Sul. Ferri.,	℈ iss;
	Spts. Lavender comp.,	℥ vss;
	Sugar,	ʒj;

Mix and compound in the same manner as the *mistura ferri composita* of the U. S. Dispensatory.

This combination is similar to Griffith's mixture, containing more of the spirits of lavender, and less of rose water. We have given a tea-spoonful of this three times a day, and at the same time, a wash of sulphate of zinc, six to eight grains to an ounce of water, for the mouth. If the physician is called early in the disease, there is no compound more serviceable.

But we have not been governed by this prescription alone. In the more feeble subjects, other tonics are of importance. "Quinine alone," remarks one writer, "in debilitated constitutions in which there is a disposition to the disease, or after a severe form of the disease has been cured, and is disposed to return, will exert a great influence." There are instances, after the acme of the inflammation is past, where it seems to stay the progress of the ulceration, and render the mother able to nurse her child. Here, we would remark that almost everything tonic is beneficial. Quassia, iron in some of its preparations, iodide of potassium, arsenic, manganese, &c., have been used with success. When the mouth is largely involved, care should be had that all medicines should be as palatable as possible, free from all irritating properties. It is desirable that they be prepared without the use of alcohol.

As the disease is essentially local in its nature, one would suppose, that local applications would always heal the inflamed ulcers of the mouth; but sometimes the contrary is true. They not unfrequently have but a feeble power over the ulceration. Sometimes they seem to exert a palliative influence, and occasionally produce permanent good. They are usually conjoined with medicines directed to the stomach. Those generally employed are nitrate of silver, sulphate of zinc, tannin, decoction of logwood, &c.

Diarrhœa. In the treatment of this symptom one should see, that the food is unirritating at the onset. When the evacuations are green, or of a sour smell, magnesia, or a mixture of this with rhubarb may be administered; or instead of this, pure castor oil, with some astringent, may be substituted. Prepared chalk; fluid magnesia; some of the vegetable astringents, such as kino, catechu, rhatany, or tanic acid, can be taken with profit.

We have seen the use of creosote, six to ten drops to four ounces of water, check the discharges when everything else failed.

Friction over the abdomen; flannel rollers about the body; rubefacients, especially if there is pain; anodyne enemeta; and warm clothing, are highly important adjuvants.

But, as we have before intimated, there are some cases which seemingly reject all treatment. The physician is called too late to stop the progress of ulceration, and the exhaustive diarrhœa, or else there is some other complication, which thwarts all the appliances used to arrest the disease. To continue nursing will keep up a constant irritation in the system. What then is to be done? Weaning the child will almost always cure the mother, if seasonably undertaken. But there are instances where resort to this is inconvenient, to say the least. The health of the child may make this objectionable, and the circumstances of the patient may render the employment of a wet nurse impossible. In such instances, we must balance the risk taken, and in a good constitution, nursing may be longer continued. But where there are any indications of exhaustion, or an anæmic state of the system, a regard to the health of the mother should be paramount, and she should give up nursing at all hazards. This is not unfrequently the important point of the treatment in grave cases to determine when weaning should be insisted on.

"The circumstances which require that nursing should be suspended, are not merely the degree of soreness of the mouth," for this alone will not always call for weaning. When there is a violent diarrhœa, copious and light colored; phosphatic urine; great emaciation; nervous irritation; paleness of the lips and face; palpitation; dyspnœa; loss of appetite; vomiting; throbbing in the head; transparency of the ears and fingers; the patient is in danger of anæmia, and the child should be weaned. Even then, it will be difficult sometimes to save life.

In a majority of cases, however, there is no such danger, and, although weaning is advisable when circumstances admit it, it is not indispensable, and women worry through after much exhaustion, and suffering, and after all is over, their health

does not seem to be permanently injured thereby. As a general rule, nursing should never be persisted in, when remedies are inefficacious to stop the course of the disease. The length of time which one must wait to test the inefficiency of remedies must of course vary according to the urgency of the symptoms.

Diet. Attention to the diet is indispensable. When the condition of the patient will permit, it should be mild, generous, and of easy digestion; such as a good supply of fresh, tender animal food; milk; milk-porridge; rice; eggs, and good vegetables. Ale and porter will assist digestion, and their use cannot be well dispensed with. Sometimes broths and soups do not disturb the healthy operations of the stomach. Food of an indigestible nature should be proscribed, as it will produce only evil.

During the existence of this complaint every effort should be unceasingly made to prevent the mind from reacting injuriously on the disease. Hence the importance of regular exercise in open air; relaxation from care; and agreeable mental occupation. The patient should have all the amusement her strength will permit, for nothing in our experience is better calculated to restore the exhausted energies of nature and carry on the individual to her wonted health.

Hygienic Measures. There is much that can be done to prevent the recurrence of this apthous condition of the mouth. Females, from a false modesty are too apt to shut themselves up secluded from the world during the last stages of pregnancy. The consequence is, the evils of dyspepsia come upon them, the system is led into a state of irritation, and they are soon fitted for the development of disease. Avoid then, by all means, such things. Exercise frequently in open air. Keep the bowels in a soluable condition. Let the food be simple and nutritious. Employ the mind upon objects that will interest, rather than upon the annoyances of gestation, and in fine, let there be a free use of everything which can amuse and make the patient cheerful.

To recapitulate: From the discussion of this subject we arrive at the following conclusions:

1st. Nursing sore mouth is not a *nova pestis.*

2d. It is not indigenous to this country.

3d. It is often of an epidemic character, and therefore governed by the same laws as govern other epidemical diseases.

4th. It is not anæmia, nor is it occasioned by the loss of a particular principle of the blood; nor can it be scorbutus; but most probably the disease in question is apthæ of a severe and obstinate form.

REPORT ON PRACTICAL MEDICINE;

Containing a brief sketch of the epidemic diseases in the city of Manchester, from 1853 *to* 1857, *inclusive.*

By Wm. W. Brown, M. D.

During the summer of 1853, Cholera Infantum prevailed to an alarming extent. It was characterized by symptoms of rapid prostration and proved fatal in far more instances, in proportion to the number of cases, than in any previous year. Dysentery was also prevalent and malignant. Almost every case would assume a typhoid character and receive no benefit from the ordinary treatment, but require tonics and stimulants much earlier than in previous years. The greatest fatality was among children who were suffering from dentition. Nothing, however, appeared during the year, that very nearly resembled Asiatic Cholera, though cholera morbus of a bilious character, would run into dysentery of the peculiar form that then prevailed.

The summer of 1854 will not soon be forgotten by the inhabitants, and especially the physicians of Manchester, on account of the appearance of malignant Cholera.

The whole number of deaths that were officially reported, and known to be from this variety of cholera, was thirty. The cases were mostly among foreigners, in densely populated parts of the city, where little attention was paid to cleanliness and ventilation.

The first case occurred on the 19th of June. The patient was a healthy Irishman, twenty-five years of age, employed as a teamster. He had been troubled with a slight diarrhœa for several days, but not at all severe enough to disable him. On the evening of the attack he returned from his labor looking pale and feeble, and remarked that he had had a great number of profuse watery discharges from his bowels, though entirely without pain. He took his bed and at nine o'clock, that evening, was in a state of collapse, with cold and purple extremities, constant retching and cramps, with no pulse below the elbow. As soon as possible, he was wrapped in large sinapisms, while internally, stimulants, with calomel and opium were administered, in small and very frequently repeated doses. Reaction slowly took place, and in twelve hours the extremities had become warm and the pulse was again perceptible, though very feeble and rapid. This patient recovered, after passing through the various stages of a long typhoid fever.

Two days after this patient was attacked, his mother, forty-five years of age, who resided with him, was seized with the disease and died in twelve hours from the time of the attack. The diarrhœa in her case was so profuse and violent as to occasion collapse immediately, and remedial measures had not the least beneficial effect. This was the first fatal case of the season and the only one that occurred in that neighborhood.

The next cases appeared about the middle of July, in a densely populated part of the city, back of Elm street, in an Irish family. Five persons died here in the space of thirty-six hours. They were laborers in the enjoyment of previous good health. We were not called until collapse had supervened in all these cases. The surviving inmates of the house were ordered, by the Board of Health, to vacate the tenement immediately. Two of the number, a young healthy man and his

wife, secured a small tenement in the back part of No. 11, Concord street, fronting on Concord square. The house was owned and occupied by a Mrs. Smith. At this time she had six or seven boarders besides her own family. Her boarders were mechanics, and were employed in the Amoskeag Company's Machine Shop. They were Americans and all of good habits and in good health at the time the Irish family moved into the back part of the building. In less than one week from the time the Irish family moved in, the man was attacked and died in eleven hours. One of Mrs. Smith's boarders, Deacon Fitz, was more attentive to the Irish family than any other person. He was ever watchful for opportunities to do good and stood by the dying man, and was often in the apartment until the body was removed. At this time, Mrs. Smith, with her family and boarders, were all in good health and spirits.

Three days after the death of the Irishman, Dea. Fitz was attacked. He retired to bed at ten o'clock in the evening, apparently in good health, but was seized with very profuse diarrhœa soon after going to his room. At twelve o'clock that night I was summoned to visit him. When I arrived his legs to the knees and fore arms were cold and of a dark purple color, and no pulse was perceptible at the wrist. His intellect seemed perfect, though he was listless and rather indifferent as to the result. His spasmodic suffering was not severe, but the thirst was intense and constant. He continued to sink notwithstanding all our efforts, and died at about ten o'clock the next morning, twelve hours from the time of the attack.

The widow of the Irishman who died in the back part of the house, was attacked about the same time with Dea. Fitz, but recovered after a long illness. Mrs. Smith and four of her boarders assisted at the bedside of the Deacon during his sickness, and within one week those four boarders all fell victims to the disease. Lastly, Mrs. Smith was attacked and died within fifteen hours from the time the diarrhœa commenced. She remarked to me that at first her indisposition was so slight as to give her no alarm, though her evacuations were very large and frequent, yet not at all painful. She did not send for a physi-

cian until coldness and spasmodic action came on, and then nearly at the same time the whole surface assumed the dark purple color, with the peculiar emaciated and shrunken countenance, so strikingly characteristic of this terrible disease.

I have thus been more particular in describing the progress of the disease in this house, on account of the indications of contagion in this instance. The presumption was that the Irishman had become infected before his removal from the house on Elm street, and that Dea. Fitz took the infection from the atmosphere of the Irish tenement. The fact that he was the first victim in the family of Mrs. Smith would go far to show that there was something like contagion in this instance, although nothing like this occurred in any other locality during its prevalence. The other fatal cases were in various parts of the city and had nothing connected with them, that looked like contagion. They were all attended with the same train of symptoms, and terminated in from ten to thirty-six hours.

During that summer and autumn, all cases of fever, diarrhœa and dysentery, seemed to partake more or less of the peculiar character of this disease. Nearly all our cases of dysentery were different from anything we had usually seen. The inflammation instead of confining itself to the colon and rectum, would pass to the small intestines and stomach, thus causing not only discharges of blood and mucous, with sever tenesmus, but intermingled, would be watery evacuations and vomiting with extreme prostration of strength.

Cholera Infantum was attended with more or less dysenteric trouble, and with gastritis of a severer grade than we had usually seen. Ordinary attacks of cholera morbus were difficult to cure, and the rice water dejections were common in cases not usually serious.

Our last fatal case occurred about the middle of August, and nothing of the kind has since happened in this vicinity. After collapse came on, *few* recovered. Many more cases would doubtless have proved fatal, had there been much delay in resorting to active treatment. The disease became more mild as it advanced, and in its more manageable form it took the

name of Cholera Morbus, which in the popular belief, has nothing of special terror connected with it.

Of the various modes of treatment, we came to the conclusion that calomel and opium in small and very frequently repeated doses, with stimulants, such as capsicum, camphor, and brandy, internally, with large sinapisms, or spirits of turpentine, externally, were on the whole, the best remedies. Generally, if we could see the patient before the serum was nearly all drained from the blood vessels, and before the residuum of the blood had begun to coagulate in the extremities, preventing its circulation, and consequently its decarbonation, causing the dark, purple color of the surface, this treatment would prove efficacious. The saline and sulphuric acid treatment, so highly recommended by several British and continental practitioners, was tried in some cases, but with very uncertain effect, especially after symptoms of approaching collapse had become manifest. Most of our physicians are especially partial to the plan of treatment first stated, viz: with calomel and opium, with stimulants.

The summer of 1855 was very healthy, and nothing appeared that much resembled malignant cholera, though our cases of dysentery were peculiar, resembling the variety that prevailed the year previous. The inflammation in almost every case would extend to the small intestines and stomach, causing diarrhœa and more or less gastric disturbance. The symptoms at first would be those of ordinary dysentery, with frequent discharges of blood and mucous, with tenesmus. But after two or three days under any mode of treatment, diarrhœa would come on, and finally vomiting, and usually after one week the stomach would reject everything, even the blandest fluid in minute quantities, yet the thirst would be intense. In these cases, our method was to permit the patient to hold ice in his mouth constantly. All drinks and medicines were prohibited from entering the stomach and the whole treatment restricted to the ice, external applications, and opiate and nutritive injections. In this way many were saved, that must have died under any other mode of treatment.

During the winter of 1855–6, typhoid fever prevailed rather

extensively among our population. The cases were generally of a mild character, though some terminated fatally. To attempt "to throw off the fever," (to use a popular phrase) is often injurious and tends to produce a degree of early debility that should be avoided. It would scarcely be safe to administer the "ten and ten" doses of Dr. Armstrong, or the powerful cathartics of Dr. Hamilton. The symptoms should be carefully watched—local determinations should be removed, and urgent symptoms promptly relieved. Good air and frequent ablution, together with plenty of cold water to quench thirst, are of great importance in this disease. When the patient begins to manifest symptoms of sinking, a proper use of stimulants is of the greatest importance. In using stimulants in fever, the effect should be carefully watched, as we seldom find two cases that require the same quantity. The amount administered should always be graduated according to its effect upon the circulation.

The summer of 1856 was unusually healthy. We had less cholera infantum and dysentery than in 1855, and our fevers in the autumn were generally mild and yielded readily to the ordinary treatment.

During the past winter, scarlatina has prevailed to some extent in a very malignant form, and many a bright and promising child has been cut off in a day. In many cases convulsions would terminate the sufferings of the little patient, before the disease would fully develop itself. In others, the rash would appear with swellings of the neck and the formation of abscesses in various parts of the body and the patient recover, after a long and painful illness. In one case the hip joint was the seat of an ulcerative process and the head of the femur was found upon the dorsum of the illium. In many instances, the disease was mild, and in such cases, more surely followed by anasarca.

During the past winter, Pleurisy and Pneumonia have prevailed to a greater extent than is usual here, and we are sorry to be obliged to acknowledge the fact, that many of our physicians are now from some cause, *too timid* or *too cautious* in the use of the lancet. One of our regular physicians was heard to remark recently, that he had not bled a person for six years!

He was asked how he cured pleurisy and pneumonia? "With Dovers' powder and tincture of Aconite," was his reply.

The promoters of the homœopathic humbug are boasting, that they have reformed our mode of practice. If the pretence of these charlatans to cure acute inflammations with granules of sugar and infinitessimal doses of *nothing*, has had any influence on regular physicians, in the use of the lancet in pleurisy, pneumonia, croup and peritonitis, let it be said to our shame! If popular prejudice is against the use of the only means by which we can save life, should that deter us from doing our duty? Never. We should do fearlessly and independently what we see clearly should be done, or do nothing, and let some other one take the fearful responsibility of the case.

The argument is, that diseases have changed and require a milder treatment than formerly; but the argument, *cæteris paribus*, is without foundation. It is evident that a person of a robust constitution, requires depletion as much in these days, while laboring under acute inflammation, as he would twenty years ago. And furthermore, we are constrained to say, that in our belief, many persons die annually in the city of Manchester, of acute inflammatory diseases, treated by various quacks, or in a feeble, inadequate mode, by some of our regular physicians, that might be cured by proper, energetic, and decisive treatment. If the people choose to be led astray by the multifarious varieties of empiricism of the present day, let it never be said that we are forsaking the accumulated light of science, made brighter and brighter, by the addition of the labors and experience of all the illustrious sages of our profession, from the days of Hippocrates to the present time. The time will come, if not in our day, when the medical profession will have less of charlatanism connected with it than at present, for "truth is powerful and will prevail."

More than half the cases of consumption we see, are neglected or imperfectly treated cases of pneumonia. No acute disease is more easily cured than inflammation of the pleura and lungs, and yet no disease is so sure to prove fatal, if left to itself or treated inadequately.

It matters little whether the patient is dosed with Cayenne pepper and lobelia, or made to swallow granules of sugar every fifteen minutes, or a certain number of quarts of water in a day, or a Dovers' powder every six hours, he is sure to loose his life if the inflammation goes on. If the disease is partially subdued and suffered to progress in a milder form, it is no less surely fatal, and is called "quick consumption," a very consoling name to the friends of the patient. If a little further subdued and permitted still to progress, it is *consumption*, and in all such sases no blame ever attaches itself to any physician, regular or irregular. How many valuable lives are thus annually sacrificed! The fact is a sad and sorrowful one to contemplate.

When called late, too late to use the lancet, and to get the beneficial effect of tartarised antimony, could the patient get the full curative effects of mercury and extensive external irritation, he would be saved in very many instances, where the results are now fatal. Many of our profession, who well know our resources and what can be done by certain agents, properly and vigorously applied, are too timid, and would rather see their patient leave the world, than run the risk of a mild mercurial ptyalism, for popular prejudice is against it.

The physician who neglects to save the life of a patient, by the use of a certain remedy, simply because popular prejudice is against the use of that remedy, is guilty of a gross wrong, and there is nothing of any weight to palliate his crime. He should never ask the patient whether he is willing to take this or that article of medicine, but should go on and do quickly and diligently, what ought to be done. If the patient object to his course, and will not have the proper treatment adopted, he should let some other one take the responsibility. Should we demean the dignity of our profession, because designing knaves have had an influence upon the popular mind, by heaping slanders upon us and our most potent remedies, for the purpose of carrying out their own nefarious schemes? The multitude have ever been most willing to adopt any belief, with the greatest avidity, that least admitted of a demonstration, and hence the

success of unprincipled and ignorant pretenders and charlatans.

We have in Manchester, a woman who possesses no more knowledge of medicine than women in general, but a great amount of self-confidence, boldness and cunning. She advertises to cure all diseases, but "especially cancers;" and here, more particularly she displays her tact at deception. The great mass of the people believe that regular physicians know nothing of cancer and make no pretence to such knowledge, and that we have not even wisdom enough to discriminate between a disease of that class, and others of a more mild and less malignant character. Every little indolent tumor, wart or minute neavus, now goes to this woman, and in her presence, what the most learned of our profession had assured the person was *merely nothing*, and required no attention or treatment whatever, suddenly becomes a most formidable disease. She applies her caustics, and no matter how great the suffering connected with the operation, or how unseemly the scar produced by the loss of healthy structures, they are wonderfully well pleased with the tremendous cure effected, and pay her enormous charge with the greatest cheerfulness.

This illustrates clearly the fondness of the great mass of our community, of being deceived and led astray. But it is our duty to defend what we know to be just and right, and shrink from no responsibility connected with the honor and dignity of our noble profession.

THE CONTRIBUTIONS OF QUACKERY TO TRUE MEDICAL SCIENCE;

An Oration, delivered before the N. H. Medical Society, June 2d, 1857, *by* THOMAS H. MARSHALL, M. D., *of Mason, N. H.*

Mr. President and Gentlemen :—My theme is, The Contributions of Quackery to True Medical Science.

Quackery has often been the subject of the medical pen. Its evils and remedy, I do not propose to discuss, but rather how it may be made available for good to the honest seeker of medical truth.

Ever since the "healing art" has been systematically practiced, Quackery in some of its phases, has abounded. It has been an evil of every age, and is perhaps a necessary incident to human nature and civilization. But to us who now suffer, not indeed as do its deluded victims, but as professional men, our times seem to be specially cursed by it.

It assumes every form, and promises every good, that none of the dupes of credulity may escape. Scarcely can a discovery be made in science, or an improvement in art, but this Protean monster will steal its mantle and show its hideous head in some new guise. But though its effects are thus baneful, and its forms so deceptive, it is not an unmixed evil. Truth, progress, is eventually advanced thereby. Such are the ways of an inscrutable Providence.

> "From *seeming evil* still educing *good*,
> And *better* thence again, and *better* still
> In Infinite progression."

The ignorant pilot, who runs his craft upon the hidden rocks, may perform a *negative* service by turning succeeding vessels away from the danger. Thus does the ignorance and reckless-

ness of the charlatan, sometimes warn and deter by the wrecks of mortality thrown up along his course.

But it is not in this way alone that good may come. *Positive* benefit has accrued from quackery. Many important medicines, valuable prescriptions and modes of practice, have been either introduced or made conspicuous by empirical pretenders. Who of us has never received a useful hint from these outsiders?

The true medical student, (and who is not yet a learner?) will fix principles so far as the advancements of science will permit, and from these reason. In regard to means and remedies, "*all things are his*;" and he will be *truly* an "eclectic." His is the search for truth and he will not refuse the boon by whatever hand it may be offered. But in doing so, he takes nothing improbable upon trust. "Prove all things, hold fast that which is good," is his motto. His facts must not be *seeming*, but *fixed facts*, and his conclusions will be based, not upon *one, or a few* of these, but upon many, carefully collated and rigidly analyzed.

And here lies the distinction between false and true systems of medical practice. The one, usually originates with an individual and is based upon a single central dogma, or an ingenious hypothesis. Upon such narrow and exclusive foundations have many systems of empiricism arisen, which, their sanguine authors and supporters expected would grow and fill the whole earth. How vain their hope is told by the scanty fragments of those systems exhumed by the medical historian and now strewn bleaching along the track of time.

Not so the temple of *true* medical science. This is the result of the associated labor of all generations. Its foundations of of tried stones were laid broad and deep by the fathers of medicine, and its structure has been gradually rising by the contributions of all succeeding ages. Science and Art, having attained to fullest perfection, shall complete the edifice and make it the admiration and blessing of the world.

Nearly all classes of pretenders, from the mere vender of nostrums, to the most visionary and sublimated medical theorist, have *one*, or at most, *a few*, specifics. Being enthusiasts and

often reckless men, these they employ without stint or discrimination. One, and the best result sometimes is, that they thus by rash experiments upon their passive dupes, develop the power and range of their favorite remedies more fully than would otherwise have been done.

The regular practitioner, using the same articles, might have failed to reach such results from motives of humanity and caution.

"Fools madly rush, where angels fear to tread."

Thomson, though he did not introduce, really made a contribution to our materia medica, by showing the capabilities of lobelia. Says Dr. Wood, of the U. S. Dispensatory, "lobelia, as an emetic, is too powerful and too distressing as well as hazardous in its operation for ordinary use." Such was the general sentiment of the profession and it was rarely employed for any purpose. Yet Thomsonians by combining it with stimulants, and tempering its action by herb teas, have proved that when thus used, it can hardly be made to kill. And this remedy, to-day holds deservedly a higher rank than it would have done but for the advent of Samuel Thomson. From this use of lobelia an important principle is suggested or rather illustrated, viz: the advantage of combining stimulants with other emetic articles, particularly in certain forms of disease, even when the *emetic effect* is chiefly desired. Also the addition of other classes of remedies, as cathartics and opiates to emetic doses, to promote certain specific results.

Again *perseverance* in the use of emetics is well illustrated by Thomsonian practice. In certain chronic diseases, the benefit of repeated emesis, independent of any special alterative effect produced by the emetic article employed, is very generally conceded. And yet, with a knowledge of this fact, do not regular practitioners often come short of success for want of *persistent* action?

We think an emetic indicated and prescribe one, perhaps two without sensible change of symptoms. Our patient gets *sick* of ipecac and we give up the remedy for something else. Not so the Thomsonian. He has no other resource to fall back upon.

With blind faith he pushes on, perhaps to the fortieth "course." And lo! the patient sometimes gets well; not because there was any peculiar efficacy in his lobelia, but because he followed up his blows.

There is a significant direction attached to some quack medicines, that they are to be *continued* till the patient gets well.

Thomsonism, as such, is now nearly obsolete. Its bed has been found too short for his followers to stretch themselves upon. The dogma, "heat is life, and cold is death," *so simple*, and once *so convincing*, to a class of minds, has lost its charm. Cayenne and the steam-box which were to keep up the vital temperature, are fast cooling off and finding their proper level. But the "hue and cry" which this class of pretenders has raised, and the prejudices they have excited and fostered against bleeding and blistering, tartar emetic and calomel, must be made yet farther available. Hence "Botanics," and "Eclectics," the motley offspring of Thompsonism, swarm through the land. These too, will contribute something to the common stock, especially by bringing indigenous remedies into notice, and then like their sand-based predecessors, be swept away by the floods of time.

Hydropathy is proving useful as an antidote for Hydrophobia. I do not mean that it cures the bite of the mad dog, but that popular fear of water as a hygienic agent, which has prevented the physician, though long ago satisfied of its utility, of using it, how and when he wished.

In an epidemic inflammation of the throat, which prevailed about fifteen years since, being prevented by the popular fear of taking cold, from applying water to the neck, I resorted to the expedient of tying a thin bag of corn meal loosely about the part, and kept it wet with cold water. This was so like a *poultice* it neither alarmed friends nor injured patients. Now cold water, and even ice, may be employed, at will, in the same community.

Dr. Currie, in England, and Dr. Nathan Smith, in our own country, not to mention minor names, even in the last century, taught and proved the value of cold water in fevers and other

inflammatory diseases. "How slow the growth of what is useful," exclaims the poet, and how well illustrated by these and similar facts.

Years passed away, and the public mind was slowly and reluctantly yielding its credence, and softening its prejudices in regard to water, when Preisnitz, austere and ominously ignorant, appeared in his mountain home and made it the Alpha and Omega, the centre and circumference of his system of practice.

This system, by addressing itself to the inherent quackery of the human mind, by taking a common agent and claiming for it new powers and the greatest safety and efficacy in all curable diseases, is bringing forward water to its true and high place in our materia medica, far more rapidly than science and the regular profession could do it unaided.

Not only will the masses lose their dread of water as a remedial application, but the profession will be instructed, not only in the extent of its use, but in some of the best modes of employing it. Credit to whom credit is due.

Exclusive hydropathy will pass away, but its element, *water*, will remain, ministering in multiplied ways to the relief of human suffering.

Passing by those systems in which *material things* are seen producing *sensible effects*, let us for a moment examine, if we can, another in which matter seems as much lost sight of as common sense.

What Homœopathy was, can be gathered from the writings of its founders. What it now is, must be learned from far more modern productions, for this system, like most others, is progressive. In one thing, I believe, all its sects agree, that *similia similibus curantur*, is an axiom.

But Homœopathic doctors disagree as to how diseases are cured by agents which excite similar affections. Whether on the principle that two similar diseases cannot coëxist, or that the remedy produces such an impression on the vital forces as excites them to reaction, or again, acts on the principle that the secondary effect of medicine is the opposite of the primary, are questions yet in dispute. Nor is it yet settled *how diminishing*

the quantity *increases* the curative effect of a medicine. It is still in controversy, whether by the peculiar manner of shaking, or the number of shakes employed, a mysterious agent is imparted or induced, which gives it potency, or whether as a late writer asserts, this power of curing is derived "solely from comminution," which he says is "the whole secret of that incredible power which experience proves Hahnemann's preparations to possess." But while its professors are disputing about these abstractions, there is a question involved in these considerations of interest to the medical philosopher, and of great practical importance to the practising physician. I allude to the effects of *division* on the medicinal properties of a substance. We all accord, practically, *some virtue to comminution.*

Instances in point are Dovers' Powder and Blue Pill, in which minute division is specially aimed at. I am inclined to the belief that the profession pay quite too little regard to this matter. And if our Homœopathic friends shall strike out any new light in this direction let us receive it, and acknowledge indebtedness.

Intimately connected with the foregoing is the subject of alterative doses of medicine and their efficacy in the removal of chronic diseases. But my limits will not allow me to discuss this topic.

The practice of Homœopathy instructs us in the value of dietetic regulations and the curability of many diseases by nature alone, unless we admit their claim of the *specific* adaptedness of their medicines to the disease treated. One thing is certain, the cure of a disease does not necessarily require a great amount of medication.

Ingenious and learned men are converts to this system and something good may reasonably be expected from their labors. And labors, methinks, they must undergo before they will have discovered, by experiment, a specific upon their principle, for all the ills that flesh is heir to. *This must be done* or the system falls short of universality. For *specific* remedies is a cardinal doctrine of Homœopathy.

You will indulge me I trust, if I now turn aside for a few

moments and give my remarks a more practical character by recording my testimony to the value of one of the articles brought distinctly into notice by Hahnemann, and by him regarded as a specific cure for that formidable disease, Scarlatina. I am induced to this, from the belief, that though known, this remedy has not been *tried* as it deserves to be.

So far as I am informed, Hahnemann was the first to announce the prophylactic efficacy of Belladonna in scarlatina, and by him recommended both as a preventive against and a remedy for this affection. He first published his views upon this subject in 1801, but for many years they attracted little attention. It slowly found advocates in Germany, France, England, and the United States, and belladonna is now spoken of by almost every writer who treats of the disease under consideration.

Hahnemann explained its action upon his own principles, others have offered different solutions. One thing seems established, that though it often produces an eruption, *like, and yet unlike* scarlet fever, its efficacy as a prophylactic does not depend on this, or indeed upon its producing any obvious or sensible effects.

In a fearful epidemic of scarlet fever which prevailed in my neighborhood about fourteen years since, after losing several of my first patients, I was led to make a free use of this remedy. First upon myself and family, and then in my practice. The effects upon myself were great dryness of the fauces and hoarseness in the morning. These symptoms passed away in a few hours. The preparation which I employed was three grains of the extract dissolved in an ounce of water; dose from two to twenty-five drops, according to age, two or three times a day. Of perhaps one hundred and fifty who took the medicine, a few only had the eruption; in most, no sensible effect was observed. In some the eruption was attended by slight fever and constitutional disturbances, and of these, a part subsequently had scarlatina. Of the whole number who took it as a prophylactic, perhaps one-fifth had scarlatina, but all in a mild form. *In the treatment of all cases of the disease* the medicine was used in the same form and nearly the same dose, but repeated more

frequently, if required. No *fatal* cases occurred where the belladonna was given before or during the early stages of the disease, notwithstanding the *general treatment* was the same as before using it; nor was the fatality or severity of the disease diminished in the immediate neighborhood where the remedy was not employed.

No *severe* epidemic has since occurred in my practice; but I have used it in many, I think some hundreds of cases, with no fatal results. With such facts before me, I commend to the profession a *fair trial* of the belladonna, in a disease which yet so often blights the fondest hopes of parents, and baffles medical skill.

In anything which I have said, I trust I shall not be understood as *looking* to quackery for the advancement of medical science. Its discoveries and benefits are only accidental—not its legitimate fruits But proud triumphs have been achieved by the truly learned in our profession, both in Surgery and Medicine; and prouder still, surely await those and only those who add to learning, ardor and devotion to their chosen pursuit.

REPORT OF LEVI G. HILL, M. D.,

Corresponding Secretary.

As one of the Corresponding Secretaries of this Society, I suppose it is my duty to present some account of prevailing diseases, epidemics, and "such novel and interesting cases as the Fellows may have communicated" to me, "and any other information that may contribute to the good of the Society, and advance a knowledge of the healing art."

No cases have as yet been communicated to me by Fellows

of this Society, and in surveying the field I could see nothing which would seem to be sufficiently novel, interesting or important to communicate to this body; and having on a former occasion given the topography of our city and district, I had made up my mind not to make any written communication at this time; but remembering my duty and the fact that it is the ordinary, and not the extraordinary matters with which we have most to do, I resolved a few days since to make a brief communication.

During the last year we have had about the usual amount of sickness, and surgery in our district. No sweeping epidemic has decimated our population, or harrassed the profession. We have had in Dover some cases of Measles, Hooping Cough and Scarlatina, all of mild character, and unattended by fatal results, in any case to my knowledge.

Three mild cases of scarlatina occurred in Madbury last autumn. Two families in Lee have suffered from the same disease this Spring, one case proving fatal. This case manifested no peculiarity until the day it terminated. The effloresence appeared as usual and continued upon the surface, and there was not much soreness of the throat. A change was observed in the lad's appearance, and Dr. Bickford, who had the care of the case, was called and arrived in time to see him expire, but could not assign a cause for the death. The patient died on the second day of the eruption or effloresence.

Some cases of scarlatina have occurred at Rollinsford, Rochester, and Newmarket this Spring, I hear, of a more severe and fatal character, but I have not the particulars.

We had less of Typhoid Fever last Autumn than usual, and generally of a mild character.

During the latter part of winter and spring we had a large number of cases of Influenza, and Bilious Pneumonia, affecting all ages, sexes, and conditions. Some cases assumed a typhoid type, and some, mostly aged persons and children, have died. The principal peculiarity or important feature in any of these cases was the clandestine or insidious manner in which the pulmonary trouble advanced. In some cases the lung would be

found extensively diseased when the attention of the patient or physician was first particularly turned to these organs.

But the more prominent feature of the year has been the unusual number of cases of Puerperal convulsions; and the fact that our midwifery cases have not recovered generally as well as heretofore.

Why these slow recoveries, or why more cases of convulsions than usual, I am unable to say; and notwithstanding I cannot give a reason for the existence of this state of things, or anything new perhaps in relation to the treatment, &c., of these cases, I will give some of the more prominent characteristics of the cases that have occurred in my practice, and also accounts furnished this day by some of my medical brethren.

Case 1st.—Mrs. P——, age about 30, of feeble habit, passed through the second labor quite as well as usual, and went to bed at 5, A. M. Being in the neighborhood at eight o'clock, I called. She seemed well in all respects save some headache, which I thought might be relieved by a cathartic and accordingly made my prescription.

I promised to call again at noon, but having to go out of town I did not return till 1, P. M., when I found her in a fit. Free bleeding was employed, stimulating applications to the spine and lower extremities, warm water injections to the vagina, with a view to increase the now scanty lochial discharge, &c. She had other fits two days after, when similar treatment was employed and she gradually recovered and is now well.

Case 2d.—Mrs. M——, aged 20, first pregnancy, sent for me on account of headache, acid stomach, costiveness and great œdema about the external genitals. I directed cathartics, diuretics and alkalies and a frequent bathing of the swollen parts, where she felt great heat and soreness.

In a few days she was better, but at the end of two weeks, and when she supposed herself a month from her confinement, she and her husband retired as usual and both fell asleep. Soon, however, the husband was waked by the convulsive movements of the wife. I was summoned, bled her freely, allowed inhalations of chloroform and ether and subsequently gave a cathartic of castor oil and spirits of turpentine. In a few hours she had another fit, and was bled again. In four days labor came on and she was delivered; after which she recovered without further trouble.

Between the fits she would answer our interrogatories intelligently, and about the time of her labor gave directions about her affairs, yet does not recollect anything about her delivery or other occurrences that transpired during two weeks after the retiring before mentioned.

Case 3d.—Mrs. F——, stout, fleshy, healthy woman, aged 19, went to bed with her first child as well as usual. I left, and had but just reached my house, five miles distant from the patient, when a messenger came saying she was having fits. I repaired to her house, learned she had had two fits. I bled her at once and used other ordinary means and she recovered without other unfavorable symptoms.

Case 4th.—Mrs. F——, of delicate constitution, feeble health, age 24, had miscarried in the third month of her first pregnancy, about two years since. I was called at eight o'clock, P. M., and learned that she had complained of headache, sleepless nights, want of appetite, sour stomach, difficult digestion, &c., for several weeks. She was now vomiting acid matter and complaining very much of headache. Having to go to my office, I left some S. C. Soda, promising to return in a few minutes, at the same time stating to the mother that her daughter was likely to have convulsions and must be bled immediately. I had not been absent ten minutes when her husband came saying she was having fits. I accompanied him and found her convulsed violently. We bled her and also used means mentioned before, but she continued to have convulsions and was bled again. She was insensible all the while and in spite of us, bit her tongue, badly. After a time she was made tolerably quiet by chloroform and ether, and at midnight labor commenced and progressed slowly till 4 o'clock, A. M., when the os uteri being dilated and the pain slight, I thought best to use the forceps, and she was delivered. She continued in an insensible condition, and for several hours seemed vibrating between life and death, and did not recover full consciousness for several days; indeed the brain did not recover fully for many weeks or perhaps months. She does not remember anything that transpired during several weeks.

Dr. Shackford furnished the following cases:

Case 1st.—Mrs. T——, aged about 30, temperament nervous, general health good, habit spare, second pregnancy, was on the street in the morning. I was called at eleven o'clock, A. M., when she complained of headache and pain in the stomach. Soon after my arrival she was seized with convulsions, being as she supposed, two months from her confinement. I gave an emetico-cathartic, bled her and administered chloroform and ether. She vomited but was not purged. The inhalations seemed to have little or no effect. Bled again at 10, P. M. In the mean time labor had come on, and now the head had passed into the pelvis. Convulsions almost constant till 1 o'clock, A. M., when she was delivered by forceps. After the delivery she was comparatively quiet for an hour, when she had another fit, lasting half an hour, and expired.

Case 2d.—Mrs. C——, age 22, temperament bilious, health generally good, second pregnancy. During two months, immediately preceding the convulsions, she had occasionally complained of headache

and pain in the stomach. I was called in the evening, found her restless, with some pain in her stomach. I gave Dovers' powder, but she did not sleep. I was called again at 3, A. M., found her in labor, the os uteri slightly dilated, presentation natural. The labor progressed moderately till 8 o'clock, A. M., when she had a fit and continued to have them at intervals of half an hour till noon, when they occurred oftener. During the interval she seemed unconscious, but talked incessantly. At 10, A. M., I bled her, gave chloroform and ether, and also croton oil. Labor advanced steadily till 8, P.M., when delivery was completed, and she remained quiet for two hours; then she had fits again, and continued to have them till midnight, when she died.

Case 3d.—Mrs. M——, aged 30, temperament nervous, health generally bad, second pregnancy. I was called at 8, A. M., found her uneasy. Said she felt "*much motion.*" I supposed labor was approaching and made no prescription. At 6, P. M., she was seized with pain, and the child was born almost immediately. I arrived soon after and she went to bed as well as at her previous confinement. At midnight I was called again when she complained of pain at the epigastrium. I gave an opiate; she soon got easy and felt inclined to sleep. I left, but was called again at 5, A. M., and found her in convulsions. I gave croton oil, chloroform and ether, which last seemed to control the convulsions; but upon suspending the inhalations, they returned. Bled her at 7, A. M.; the cathartic operated thoroughly; still the convulsions continued and increased in violence till 12, M., when the bladder was found to be much distended; catheter employed and a large quantity of water drawn, of a dark color and offensive smell. The fits were less frequent and less violent till 3, P. M., when she slept. This sleep lasted about three hours, when she started up suddenly and had a fit. We gave the chloroform and ether and kept up some anæsthetic influence for several hours and she had no more fits. She however continued in a seemingly conscious state for five days, sleeping, waking, and conversing, but said nothing about her labor or child till on the fifth day she heard a child cry below stairs, and enquired whose child it was. On being told it was hers she declared she had had no child, but upon examining her abdomen admitted that it might be hers. From this time she gradually recovered, and is now well.

Dr. Fernald furnished the following case:

Mrs. D——, aged 22, feeble constitution, lymphatic temperament, first pregnancy. I was called on Saturday night at twelve o'clock. Upon enquiry I learned that she retired about 9, P. M., with severe pain in the head; went to sleep; awoke confused, and immediately became convulsed. She had another fit soon after I arrived. I took eight or ten ounces of blood, which was all I could get at the time. The convulsions continued. She was bled again; the neck cupped;

leeches applied, and cold to the head; cathartics, assafœtida, &c., employed. There was no uterine action until Sunday at 3, P. M. The convulsions were suspended at 11, A. M., but returned at 6, P. M. From 3, P. M., the uterine action continued, though feebly, till 12 o'clock, Sunday night when the delivery was accomplished by the forceps.

She never recovered her consciousness, and during the last twenty-four hours there was an utter inability to swallow.

Death took place at twelve o'clock, Monday night, just forty-eight hours from the attack.

Dr. STACKPOLE furnished the following:

Mrs. H——, aged 45, temperament lymphatic, remarkably fleshy, health generally pretty good, fifth pregnancy, was about her business as usual, when she was suddenly seized with convulsions, being about six weeks from her confinement. We bled as freely as possible; put her feet in hot water, applied mustard plasters to the lower extremities, gave a cathartic of calomel and jalap, and subsequently bled again on the same day. She was relieved of the convulsions, but had great difficulty of breathing and could not lie in the horizontal posture till after her confinement, which occurred in about six weeks. During this time she required careful watching, as she had symptoms of fits; the nervous system was very susceptible, and she was at times feverish, &c. We kept the bowels soluble, enjoined low diet, abstinence from drinks and perfect quiet of body and mind. The child was dead and quite fœtid. After the labor she recovered slowly and is now quite well.

One noticeable fact is the long time the fœtus remained in the womb after the death, which was presumed to have occurred at the time of having convulsions.

Drs. FENNER and ELLIOT had each promised an account of one or more cases, but they have not been received.

Thus, gentlemen, it may be seen we have had an unusual number of cases of convulsions, occurring in a variety of subjects, under various circumstances, with some variety of treatment, and more of variety in results than is pleasant, though I am not aware that an undue or unusual number of the cases have proved fatal. I don't know that I ought to say more in relation to treatment. I believe all the means before mentioned may be useful; but if we inquire into the philosophy of these cases we shall see the importance of *unloading*, so to speak, the womb, bowels, and blood-vessels, as soon after convulsions occur as prudence will permit, if indeed we do not anticipate and prevent them by suitable evacuations.

MISCELLANEOUS OBSERVATIONS IN OBSTETRICS AND DISEASES OF WOMEN;

By Wm. Henry Thayer, M. D., Keene, N. H.

I propose to ask the attention of the Society to several topics connected with midwifery—some of which relate to matters of common occurrence, having a practical value, but having rarely attracted much notice; and others which owe their interest to the rarity of their occurrence.

A medical friend having told me that he was in the habit of rupturing the membranes in all cases where the labor was at all prolonged in the second stage, I recollected that in my earlier years of practice I was much inclined to the same thing. Had I not referred to my record book, I should not believe that I had so often resorted to this expedient. Most young practitioners are inclined to assist nature in obstetric cases, or to attempt to do so; and it generally takes them four or five years to discover that the uterus will do its work quite as well if let alone, and that there are few cases, with presentation of the occiput, and pelvis of normal capacity, which are benefited by interference.

Medical writers are nearly agreed on the manner of dividing the labor into stages, making the first stage extend from the first uterine contraction to the full dilatation of the os uteri and its retraction beyond the reach of the finger, and the second stage terminate with the birth of the child. When the placenta is retained, the time that elapses after the child is born until the placenta is delivered is sometimes called the third stage. This division into stages is of great practical value. The conditions of woman and child are entirely altered after the completion of

the first stage; and it makes a material difference in the result whether delay occurs in the first or the second. The first stage may be prolonged many days without making much impression upon the strength of the mother, or endangering the life of the child. Lengthening of the second stage, however, is very wearing to the mother, and is believed sometimes to occasion attacks of cerebral apoplexy in the child within a few days of birth. The pains are more violent at that period of labor, hence more exhausting; and if the bladder or rectum slough from long-continued pressure of the child's head, it is in this stage—when the head is completely in the pelvis. A very long first stage may prostrate the woman, if its length be owing to such mechanical obstruction as a contracted pelvis or a tumor—when the uterine efforts will be unusually powerful, and hence exhausting. If, however, no mechanical impediment exists greater than a somewhat rigid os uteri, or the delay be simply owing to insufficient uterine action, (perhaps the most common cause of protracted labor,) the first stage may be very long without occasioning any dangerous exhaustion. The present object is to ascertain what effect artificial rupture of the membranes has upon the length of labor. Is it ever beneficial? Is it injurious?

During a part of my practice I have carefully recorded all my obstetric cases, and particularly in the early years. I find that in twenty-five cases I ruptured the membranes immediately or soon after full dilatation. We know that spontaneous rupture of the membranes occurs almost immediately after the os uteri is fully dilated, and delivery is, in cases which may be considered natural, almost immediately accomplished. In these twenty-five cases, in which I did not wait, but broke the membranes, the further continuance of the labor was of various length. In several cases delivery was immediate; in one case the labor lasted an hour and a half; in none longer, where the presentation was normal. In seventeen of them, the average duration was ten minutes; in five, the average was an hour and twenty minutes; in three, it was three hours long, owing to abnormal presentation.

Now, without being able to refer to tables showing the average

length of the second stage, I do not think that the average continuance of these cases was much shortened by the interference. There is now and then a case in which it is pretty evident that rupturing the membranes will expedite the case or give some relief to the mother, as I shall presently mention; but it is rarely called for, either after complete dilatation or before.

We may find the membranes so exceedingly *tough* as to delay the labor. We may judge this to be the case when, with large pelvis, full dilatation, and regular, sufficient pains, they remain unbroken. I have recorded one such case, where after waiting four hours and a half after the full dilatation, I ruptured the membranes and the child was born in fifteen minutes. Here there can be no doubt of the advantage of the treatment.

Before complete dilatation, we all know very well the necessity of rupturing the membranes early in cases where it may be necessary to change the presentation, as in turning to bring down the feet, or otherwise. There are also rarer cases, where the labor is impeded by the large amount of liquor Amnü, or there may be a quantity of water between the amnion and chorion—and the power of the uterus appears diminished by excessive distension or its inability to press the fœtal head into the cervix. In two such cases I have ruptured the membranes with good effect. In one of them labor continued thirty-six hours, with violent pains and very little dilatation of the os uteri. The case occurred in Boston and was in the first year of my practice. Calling Dr. Channing to give me advice, he ruptured the membranes, thinking the delay owing to too large a quantity of water. A great deal was discharged, the pains abated, the patient passed twelve hours more with few pains, when they came on actively, and she was delivered—forty-eight hours from the commencement of labor. I have since verified the diagnosis and the treatment in another case.

When from any cause we have *spontaneous* rupture of the membranes while the os uteri is still small and thick, we expect that the labor will be long. Of the cases, however, of early spontaneous rupture that have occurred to me, only one has been of long duration. That one occupied fifty-four hours.

We meet with some women whose labors are very active and short; whose first intimation of their approaching confinement is a gush of water or a dropping, with or without a pain; but the pains soon come on if not present at first, and continue almost incessantly till delivery takes place, which is often in a very short time. I believe that these are generally the shortest labors.

Presentation of the Funis. Presentation of the cord, or prolapse of the cord—the head presenting, has occurred in the published reports of Britain, France and Germany, according to Dr. Churchill, 401 times in 98,000 cases. Once in 245 cases. I have seen it in two instances. My object in mentioning it now, however, is that in one case I was able to replace the cord above the brim of the pelvis, and the child was born alive—a result due to a fortunate and unusual accident, not to peculiar skill, as the whole history of such cases shows. For the records of Dr. Churchill, collected from various sources, give a loss of 220 children out of 355 cases, of which 355, 154 were delivered by turning or the use of forceps—and in only four of the 355 was the cord returned. It is always recommended, and often attempted, to return the cord, and try the various expedients to keep it up, but rarely succeeds. My case is thus recorded:

Mrs. E——, aged 26, first labor. Os uteri fully dilated; membranes very full and protuberant. Head presenting, movable, does not come down. Pains at intervals of two minutes. I ruptured the membranes, and at the next examination found a loop of the umbilical cord in the vagina, between head and sacrum. Head has hardly entered the upper strait. * * * * *One and two-thirds hours later.* Pulsations of cord feeble. Pains have continued actively, with little effect. The patient having resisted my passing my hand into vagina, I etherized her completely—passed my hand into vagina with the greatest ease, all the parts being relaxed since the inhalation. I then carried up the cord on the ends of my fingers, holding the head in my hand. My hand was then carefully withdrawn from the uterus, and the head followed it and entered the upper strait. The cord did not again come down. Labor went on well, and the child was born in an hour and a half, It did not breathe vigorously at first, but the next day was very well.

In this case, the head, by great good fortune, fell into the upper strait and completely filled it, as soon as the cord was passed up. In the other case, which occurred before this one, I made the same attempt to replace the cord, but without success.

Hæmorrhage after delivery is perhaps the most frequent untoward event that we meet with in obstetrics. I have for several years past made a practice of administering ergot as soon as the child is born, or, if labor is evidently nearly accomplished, a short time before the birth. This I should certainly never fail to do for women who have flooded after previous labors—and in all cases where the pulse is considerably above the usual rate, a symptom premonitory of hæmorrhage. But it need not be restricted to these cases. The use of it in all cases has not been found in any way injurious, and the lochial discharge ceases earlier where ergot has been administered.

The use of ergot during labor is hardly admissible, except in cases where the condition of the mother may call for immediate delivery, even at the risk of sacrificing the child; and even then the forceps will be preferable, unless the action of the uterus has entirely ceased. It does not follow, however, that the child will certainly die if ergot be given. I presume that this drug endangers the life of the child simply by the increased frequency of uterine contractions which follow its use; and when, as sometimes happens after ergot has been taken, the uterus hardly relaxes at all till the fœtus is expelled, so rapidly do the contractions succeed one another, the circulation of the placenta must be very much checked by the constant compression. If the child is born dead in these cases, it must be from the circulation being arrested by these means. I have never, however, had a child die where ergot was administered in this way—although it was not an uncommon practice with me in the years when I was more given to meddling than I am now. If the case is terminated in a short time, an hour or two after the use of ergot, the danger to the child is less than where it is much protracted. There is one case on my book where the child died during labor where ergot had been freely given; but

the death was sufficiently accounted for by the profuse hæmorrhage the mother suffered before and during labor.

Cases occur to every practitioner where the uterus becomes completely relaxed after labor, and dangerous flooding comes on. Ergot may have been administered, but has not yet acted—for it requires twenty or thirty minutes at the very best to produce its specific effect—or no ergot may have been given at all. What shall be done? Before the ergot can act, the patient may have bled to death. Of the several modes of practice that are generally pursued, I prefer to pass my hand, holding a piece of ice in it, into the uterus up to its fundus. It never has failed with me to bring on immediate contraction, and my hand and the ice are usually borne steadily along until they are completely expelled. Then is the favorable time to grasp the contracted uterus through the abdominal parietes—and so long as we can maintain a firm grasp, it will be stimulated to a sufficient degree of contraction to prevent any very serious hæmorrhage. It is no great hardship to stand sentinel over it for half an hour, or even an hour, until the gradual or sure action of the ergot relieves us from further attendance. And if in the meantime the uterus relaxes, slips from our grasp, the hand may be again introduced and ice carried up into its cavity, with the same good result as at first. I have sometimes kept the right hand in the vagina, supplying the uterus with bits of ice as large as a pullet's egg, and grasped the organ through the abdominal walls at the same time with the left. And this, though exceedingly wearisome, can be endured for a full hour, if we have the awful conviction that in our very hands is the life of a woman. If we can only hold on a little while, the ergot comes to our relief, like a *corps de reserve;* and when the hand is removed, the uterus no more relaxes, and the blood no longer flows. The woman must of course be motionless, and exposed to the air; the abdomen uncovered and the hand that grasps the uterus cooled with water or holding a piece of ice, also.

The subject of uterine hæmorrhage in general, with the after treatment, has been too well described by many excellent writers, to allow of any very extended allusion to it. I will only

detain you with the relation of a case of abortion in the third month, with profuse hæmorrhage, interesting particularly from the very long convalescence:

Mrs. K——, aged 30, mother of two children, believing herself nearly three months advanced in gestation, had slight "show" early one morning, which soon ceased; had steady pain in back all day. Kept quiet, lying down much. Eat heartily at 5, P. M. While at the table, began to flow freely. Got to bed at once, and there I found her at seven o'clock, on her back, pallid, flowing considerably, with no labor pains. Gave morphiæ sulph. gr. ¼.

8¼, P. M.—Still flowing, somewhat. Has much steady pain, low down in pelvis, which ceased at once after I removed clots from vagina. Gave her gallic acid. At 10, pale, faint, pulse feeble, but no labor pains. Gave ergot, and introduced a silk handkerchief as a tampon. The ergot was repeated in three-fourths of an hour, but she vomited up her supper, and after an interval, it was repeated again, but again vomited. Tampon removed. Ice passed into vagina, and afterwards tampon renewed.

At 1½, A. M.—Pulse hardly perceptible at wrist. No labor pains. Began brandy, ʒss. every fifteen minutes. Repeated gallic acid. In three-fourths of an hour, patient being somewhat revived, I removed tampon and passed my hand into vagina, and with two fingers in the uterus, separated the ovum, still closely attached, and withdrew my hand bringing down membranes. After moderate traction of them for ten minutes the whole ovum was delivered, and the uterus contracted immediately. Passed ice into vagina and applied it to abdomen.

At 3¾. Pulse 80 to 90. Very pale. Respiration for two hours past; sighing at intervals. Prickling of feet—sometimes of hands. Thirsty; no hæmorrhage. Began soon to take beef-juice alternately with brandy, and continued them according to her tolerance of them for several days. Kept supine position. Was unable during first day to turn her head or move her limbs, from debility. Her skin, lips and tongue continued perfectly pallid. Thirty-six hours elapsed after hæmorrhage ceased, before there was any appearance of color in either; the tongue looked as if coated with fibrin, it was so free from color. Her face, her lips most of all, were œdematous for several days. A little excitement produced headache. On the third night, slept uneasily, dreaming often of fainting away. Had an hour's good sleep towards morning. Felt better; was able to move her arms. Began to take iron. This nauseated her and was omitted, and Quiniæ S. given—grs. iij daily. Had no dej. for four days, and got enema.

On the sixth day was carried to sofa for a few minutes. Eyes very little troubled by light. Vertigo, if raises head from pillow. Sleeps well. Appetite good but moderate. *Resume iron.*

Kept horizontal position for another week; then, on the thirteenth day, sat up five minutes, but was faint, and for several weeks more kept bed most of time, sitting up a little longer from day to day.

It was nearly three months before she had recovered her usual strength and color.

Of all the cases of serious uterine hæmorrhage which I have seen (in some of which a much larger amount of blood was lost, and the radial pulse was quite imperceptible,) I do not recollect one in which the consequences were so serious and so lasting. The hæmorrhage was neither extremely large, nor very sudden; it could not have exceeded four or five pounds, and occupied five hours before the first tampon was introduced.

There are some interesting observations in relation to the circulation of the fœtus, and some points worthy of notice in the condition of the umbilical cord after the birth of the child.

When the subject of umbilical hæmorrhage was discussed, by the Medical Observation Society of Boston, some years ago, it was laid down as a rule by some of the members that the cord should never be tied while it continued to pulsate. I had observed about that time, and stated then to the Society, that the umbilical cord continued to pulsate through a part of its length for some time after its circulation had ceased, and this pulsation might therefore be a false guide. I have frequently since paid careful attention to the state of the cord, and have arrived at the following results.

As soon as the child is born and breathes, the placental circulation ceases (understood before)—but (not noticed before) every contraction of the child's heart continues to be attended with pulsation of the umbilical arteries through a part of their extent—first, five or six inches, or even more from the child—then growing less and less, pulsating a shorter and shorter distance from the child, but often continuing for ten, fifteen, or twenty minutes to give regular pulsations for as much as three inches from the abdomen of the child. These arteries remain partly filled with blood after they are cut off from the circulation—but the blood they contain continues to receive an impulse from every beat of the iliac arteries, until drop by drop it is gradually received into the circulating current and the impulse it gave to the cord ceases. It is like a perpendicular pipe attached to any part of an aqueduct—rising to a greater altitude than the reservoir which supplies the aqueduct. Although our perpendicular is open at its upper end, no water

runs from it, as it is higher than the head; but up to the same level with the head the water will always stand in it. And so it does in the umbilical arteries, or would forever, but for the contraction of these vessels and final closure. It remains in them as far as the abdominal walls, and a few inches farther, indefinitely long; and he who waits till the cord has entirely ceased pulsating before he ties it, will have an opportunity to spend some time unnecessarily at the bedside. Let me illustrate with a case.

A woman in her first labor, 20 years old. 1st stage, 8½ hours; 2d stage, 40 minutes; male child; did not cry; and the pulsation of his heart and of the cord was slow, about 60 or 70. The umbilical vein was full, and did not pulsate. The arteries were pulsating. After being sprinkled with cold water, and slapped, the child inspired deeply and cried aloud. The umbilical vein was immediately entirely emptied, nearly as far as the placenta; the pulsation of heart and umbilical arteries increased in rapidity. The vein remained collapsed. The placenta being in vagina, I removed it into a basin without cutting the cord. Pulsation continued for six inches from umbilicus; but gradually ceased, beginning at the part farthest from the child. In sixteen minutes from birth of child, it was limited to the first two inches from the abdomen, and the cord was tied at two and a half inches.

In another case, I cut the cord about five inches from the child, without tying it, the placenta being in the vagina. There were two jets of blood from the fœtal segment of the cord; but after that, no more blood, except a slight oozing, causing a drop occasionally to fall. *The pulsation, however, continued from the abdomen to within an inch of the cut extremity for five minutes longer, when it had become feeble, and the cord was tied.*

I said that when the child breathes, the placental circulation ceases. In far the greatest number of births, the placenta is detached during the contraction that expels the feet of the child from the uterus; and in these cases, the placental circulation ceases perhaps *before* the child breathes. It ceases or begins to cease—it does not continue with any activity—after the placenta is separated from the uterus; it does not continue actively after the respiration of the child begins, even though the placenta is still adherent. That is, either the establishment of respiration in the child or the separation of the placenta alone, weakens and soon puts an entire stop to the placental circula-

tion. The two conditions occurring together, stop it at once. We have seen by the case last cited that some degree of circulation continues for a time after the separation of the placenta if respiration be not established; the following case shows the same effect following retention of the placenta, even though the child respired actively.

A woman in her sixth labor. First stage, 12 hours; 2d stage, 15 minutes; child began to cry at once. Placenta retained. Vein and arteries of cord full. Pulsation in vein continued through whole length with very moderate force. None in arteries except within three inches of the child. In a minute and a half there was a pain, and placenta was separated. The vein became gradually emptied; the arterial pulsation continued within two inches of the child for five minutes more, and then entirely ceased.

Since I began to observe the condition of the cord after birth, I have never had an opportunity of ascertaining whether the placental circulation would continue until the placenta was separated, if it remained attached to the uterus for half an hour, an hour or more. It is probable that it would gradually cease. In the case just cited, where the placenta was retained only a few minutes, there was no complete circulation; the blood flowed moderately with distinct pulsations from the placenta through the vein, but did not return; the arteries beat only for three inches from the child.

I find another case like the last:

Child born. Cord continued pulsating throughout. In a few minutes a uterine pain, and pulsation immediately ceased through all the cord, except the part near the child, where it continued a little while longer.

From these observations I infer, that, *if respiration be fully established, the cord may be cut, whether pulsation has ceased or not.*

In general it is not necessary to tie the cord; there is rarely any tendency to hæmorrhage; but as it sometimes occurs when the ligature is not sufficiently tight, and as it is impossible to predicate when hæmorrhage will occur, and when not, it is not safe to omit the ligature.

There are cases in which the establishment of respiration

appears to be actually prevented by too full a state of the vessels, and the child would perhaps never breathe if the umbilical cord were not divided. The following is an instance.

I saw in consultation a woman who had been thirty-eight hours in labor. Delivered her with forceps, while under the influence of ether. Placenta retained. The child did not respire, but the heart pulsated feebly. Cold affusion, blows, and attempts at artificial respiration, had no effect. The heart beat more feebly. Ten minutes after delivery, the cord pulsating distinctly (one of the umbilical arteries,) I tied it, and then cut it between the ligature and the child. The blood flowed from it in strong jets—and after three or four jets I restrained it; the heart beat more rapidly and much more strongly, and there was a long inspiration. I suffered it to bleed a few jets more, when it nearly ceased, and I tied the cord. Other long inspirations followed at intervals. I renewed my blows and dashed more water in the face. Presently the child cried out feebly, and, with a continuance of my efforts, more violently, and in about twenty minutes from birth regular respiration was fully established, and I wrapped it in warm blankets. The breath of the infant had a decided odor of ether. The mother did not recover her consciousness till about this time, half an hour after the ether was discontinued. Another contraction soon discharged the placenta.

As the mother was still under the effects of ether at the time the umbilical cord was divided, it is possible that her condition influenced the child, as the placental circulation was not then entirely suspended. The division of the cord was immediately followed by the establishment of respiration, which was delayed by embarrassment of the circulation, due either to hyperæmia or to the presence of ether in the blood.

Obstetricians generally object to etherizing a patient in instrumental cases. Ether was used in this case on account of the great lameness and restlessness of the patient, worn out by a long labor and impatient of any manual interference.

The next case is one of conglutination of the os uteri, the result apparently of extensive and long continued ulceration of the cervix. Delivery took place after incision of the cervix.

On the 28th of Nov. 1855, a lady, 36 years of age, began to be in labor with her third child. The second was born fifteen years before. I saw her at 9, A. M., Nov. 29th, when pains had continued twelve hours. Could not find os uteri. Head presenting—felt through anterior part of cervix, high up. Vagina moist—very sensitive, as for three weeks past on motion or micturition, by her report. Urine and fæces have been freely passed.

At the 18th hour of labor, began to give ether, which was continued at every pain for eighteen hours; and then, with occasional inter-

missions, for eighteen more—but not to unconsciousness. Pains, when not diminished by ether, very distressing, and low down in vagina; and when there is no uterine contraction, motion of the child brings on pain. At the 29th hour, anointed vagina with Ext. Belladonna, on account of its extreme tenderness. Then, for the first time, felt a slight, puckered depression—which I thought might be the os uteri.

At the 36th hour. Pains have declined in severity and number within an hour—before that every five or ten minutes. No ether in last hour. Sleeps between pains. Much less sensitiveness of vagina. Depression a little broader—no doubt of its being the os uteri; it can be covered with the end of the finger. No feeling of membranes through it. I broke down with my finger the adhesions—when the os uteri became immediately evident, in natural shape, as if I had cut a string which drew it up. It was thin, pretty smooth, not very soft, about one inch in diameter. Head enclosed in the membranes; distinctly felt through it.

At the 48th hour, 9, P. M., Nov. 30th. Pains less frequent and severe through the day: four or five per hour. Pulse has been pretty full and soft. Os uteri same as twelve hours ago. Membranes have broken—not known when. Hardly any water. Has had less ether through day. ℞—Morphiæ Sulph., gr. ss. After this grew sleepy, but pains continued and grew more forcible and frequent.

At the 55th hour. Os uteri remains much the same as immediately after adhesions were broken down nineteen hours ago—unyielding. Considering this condition to be probably due to cicatrices resulting from the abscesses of the cervix in previous years, I divided with a a bistoury the margin of the cervix for half an inch or less on two sides. The pains abated much in frequency, till 8, A. M., (four hours later) when they returned with force. Ether was then omitted.

At 9, A. M. The cervix was so much dilated, that I was able to push it back over the head.

At 10½, A. M., Dec. 1st., 61½ hours from the commencement of labor, a female child was born, and in fifteen minutes, with the next contraction, the placenta. Gave Ergot, ʒss.

Dec. 8th. Began soon after labor to suffer with tympanitis; from the 2d to the 6th it was very distressing; also constipation and painful micturition. Had oil; has had wine and turpentine. Sweats profusely. Takes meat.

The tympanitis was several weeks in disappearing. Patient was fed heartily and continued to take wine daily—and retained horizontal posture for a long time—beginning to sit up in three weeks, but then only for a few minutes. By the middle of January (six weeks from labor) rode out; and before February 1st, walked out daily.

Feb. 1. Is strong and well. Weighs fifteen pounds more than ever before. Has no trouble in pelvis, except some pain in micturition, which she refers to vulva, which is quite sensitive. No leucorrhœa. No dragging pain. Bowels regular. Has an abundance of

milk. Wash vulva and vagina with solution Zinci. Sulphatis. Uses lukewarm water injections for vagina, daily.

I learned afterwards from the physician who had formerly attended her, that her uterine disease had been of a very serious character She first consulted him in June, 1853. For several years before that she had suffered with leucorrhœa. She had then pain in limbs and pelvis, and in walking great pain in vagina. Was somewhat irregular in her catamenia, and the periods were severely painful. Had dysuria and pain in defæcation. Suffered with dyspepsia. On examination, he found great tenderness of vagina and uterus. The uterus was prolapsed and retroverted—cervix uteri enlarged and ulcerated—*os* open so as to admit the finger—pus discharged freely from internal face of cervix, apparently high up.

Gave her Iron; wash of Chloride of Zinc solution, and of Tannin. Applied solid Nitr. Argent. once a week to internal face of cervix.

Kept her in horizontal position for five months. There was excruciating pain and burning after cauterization. Pus continued to discharge for four months: when pressing the speculum around the cervix it would run ʒj at times, apparently from the upper part of cervix. The ulcers which were external healed earlier. The caustic was continued while the internal discharge lasted.

At five months, the os uteri was about closed: dysmenorrhœa ceased. Catamenia regular. She continued well till winter of 1854–55. Was about without pain; little leucorrhœa. In that winter had some anteversion of uterus and tenderness of os uteri, with slight enlargement. After becoming pregnant, felt no difficulty, till three weeks before labor, when the vagina became extremely sensitive, so that micturition and walking were very painful. The ovaries could never be felt.

June 2*d*, 1856, four months after birth of child. She has none of the old symptoms. Feels perfectly well. Nurses child.

Although considering the stationary condition of the cervix uteri in this case to be owing to a structural lesion which medicines would not affect, relaxing applications would have been made before using the bistoury, had there been any of whose efficacy we have any evidence. Belladonna, which probably never does relax the cervix when applied to it, had already been used (although for another purpose.) It was not till two months after this case that I saw in the *Boston Medical and Surgical Journal* a quotation, of the recommendation of enemata of a solution of Tartarized Antimony, described by Dr. Marsh, in the *Edinboro' Medical Journal* for January of last year. This agent is there reported to have been used very successfully in rigidity of the os uteri, when free from the contraction of a

cicatrix.* Dr. Buckingham of Boston, some years ago, reported to the Medical Observation Society, a case in which he divided the margin of the cervix with excellent result, as in the present case.

This case has been related at length, on account of its extreme interest. Now that diseases of the cervix uteri are diagnosticated and submitted to active local treatment, it becomes an important question what is the ulterior effect of these affections and of the repeated application of caustics to the cervix uteri, upon future gestation and delivery. It is hardly possible that pregnancy could take place in the condition in which this patient's uterus was at the time she came under treatment. After her recovery, however, gestation went on as successfully as if she had never been ill. But the closure of the os uteri, protracting labor to the great length of sixty-one hours, was the result—we can hardly doubt—of the disease or its treatment. There is no improbability that the long continuance of suppurative inflammation of the cervix—not superficial but substantial—might result in cicatrices sufficiently firm to produce the obstacle which was found. Whether the caustic treatment will make contraction and agglutination more liable to occur, we have yet to discover by experience.

One interesting point is brought to mind by this case—the fact that pregnancy is the most reliable cure for uterine diseases. In many an instance we find that if the organs of reproduction can be brought to a degree of integrity which will enable them to perform this function, they come out of it restored to healthful structure and action. If pregnancy can be produced in a woman who has been the subject of uterine or ovarian inflammation, and we can watch the getting up, so that she commits no indiscretion, she has a very fair prospect of recovery.

In this connection I wish to notice the effect of too early getting up from childbed. Medical writers have been sufficient-

* Still later, Dr. Batchelder of Rhode Island, reports in the *Boston Medical and Surgical Journal* for May 15th, 1856, that since 1847 he has used enemeta of a solution of the tartrate of antimony in eight cases of labor, which were protracted by rigidity of the os uteri—and in all with good result. Several other physicians have published similar testimony.

ly explicit upon the necessity of retaining the horizontal posture until the uterus has become considerably reduced in size. But for want of understanding the object in view, it is very common for mothers and nurses to believe that there is no need of lying abed if the patient feel strong and well; and instances are then quoted of this and that vigorous woman who gave birth to a child one day and was at the wash-tub or about house on the next. Medical men, sometimes appear to be laboring under the same error, and some even go so far as to say that savage mothers not only accomplish their labors with greater ease and rapidity, but go at once about their usual pursuits with perfect impunity. Now as savages have been brought up in evidence that there is no need of remaining quiet for some days after labor, it is fortunate that the Medical Statistics of the United States Army for fifteen years, published in 1856, under the authority of the Surgeon General, give us the experience of several army surgeons on our frontier, who indeed confirm the general opinion that Indian women get up immediately after child-birth, but who report that prolapsus uteri and leucorrhœa (which at the present day usually implies disease of the cervix,) are extremely common among them. The remarkable agreement among them on this point of the reports of surgeons at far separate posts, without their attention having been officially directed to the subject, give great value to their statements.

Dr. David Day, says of the Winnebago Indians, Minnesota, "the diseases incident to the female organs of generation are extremely common, especially prolapsus uteri and leucorrhœa. The former of these complaints, amounting in many instances to complete procidentia, is so frequent, that *a majority of all women who have borne children are affected with it.* Nor is this surprising, when the ill after-treatment to which their parturient females are subjected is taken into consideration. They never maintain the recumbent position an hour after delivery, and generally return within a day or two to the labors of the cornfield," &c.

In the report of Surgeon Moses at Astoria, Washington Territory, the condition of the Indian tribes is particularly men

tioned. He says, "child bearing is no more easy nor less dangerous process than among other females in the same circumstances of life."* There are cases, no doubt within the knowledge of all the members of the New-Hampshire Medical Society, of diseases of the cervix uteri or of prolapsus, clearly traceable to the neglect of those precautions which are thus disregarded by the Indian women.

There are one or two errors in the domestic management of the puerperal state, which I wish to allude to before closing this miscellaneous paper.

First, of the management of the breast during the first secretion of the milk. Every physician has undoubtedly fallen in with nurses who attack the breast with violent friction when it is swollen and hard at the commencement of the lacteal secretion. There is milk "caked up" there, according to their notion, which must be rubbed away, or there will be a "broken breast." So they go to work with violence, and the more it aches the harder they rub — and those who escape an abscess are fortunate. This is a practice with many nurses everywhere. There is another which I never met with till lately—one more monstrous and absurd still than champooing the mother. The mamma of a new-born child is very apt to swell somewhat in the first few days of life. I have once or twice known it to be so much so as to appear to occasion some discomfort to the child, and have been consulted on this account. A cooling lotion, like a solution of Diacetate of Lead, applied for a few hours, has diminished the tumidity, and no trouble has ever ensued in any case within my knowledge. It is a physiological condition peculiar to the beginning of life, in both sexes, and no more requiring interference than does any other of the vital actions. To my astonishment, a nurse attending a lady who was under my care last year, called my attention to the mammæ of the child, and proposed to squeeze them, for the sake of pressing out the milk and *preventing suppuration!* I charged her on no account to do any such thing — when she said it was her common practice

* Medical Statistics, United States Army.

and that of all the nurses she knew, and was approved by a physician of a neighboring town, where she lived.

Now there are many prevailing errors in opinion and practice which physicians are accountable for, either because they have believed and taught them—or because they have not taken the pains to correct them. I believe that we do only half our duty when we attend the sick and leave the daily doses and directions for diet. It is incumbent upon us also to let the influence of our knowledge be constantly felt; to correct absurd practices, even if we think it not worth while to combat opinions. The value of our medical education will never be completely felt, unless we are willing to instruct our patients how illness may be avoided, rather than delay interference until the malady has gained possession. In regard to the treatment of the breast of the infant, I never met with any such opinion from any medical man; but as to that of the mother, I am obliged to say that physicians are accountable for the practice of active friction. To its advocates, I would suggest, that the hard and painful breast of many women at the first secretion is in that condition from the excessive activity of the function of secretion, its circulation very active, its vessels distended with blood—it is over-action, and not the accumulation of milk in any part of it—there is no place where it can accumulate to any great degree except in the larger milk tubes, which can readily relieve themselves. If an abscess follow such a state of the breast when there has been no interference, it will be because the woman was not in full health, and the capillaries of the breast were therefore in a debilitated state, favorable to the production of inflammation. I have never seen a case of mammary abscess in a healthy woman, except where friction was used; and in many cases in which I have been consulted where the breast was swollen, hard and painful, the swelling, pain, and hardness have disappeared, under rest, moderate diet and cooling lotions. In some very marked cases I have applied leeches (which are best applied *around* the breast) and in many given a saline cathartic. In the generality of cases, rest and the application of cold water during a single day have been all-sufficient to

remove the difficulty. The Sugar of Lead has a peculiarly good effect as an application to the breast. It is best applied in the form of Goulard's Extract, much diluted. Indeed, under it the breast has subsided so much in a few hours, and the secretion of milk has been so materially checked, that I have thought it possible it exerted a sedative influence, more than that of a mere evaporating lotion, and have been obliged to discontinue the use of it after a short time.

So common is it for women to rub the breast if it is painful and distended, that I now never leave the lying-in room of a patient whom I have never attended before, without strict directions to let the breast alone; neither to call in an accommodating neighbor to perform the office of the child; nor to take a puppy to nurse, as one of my patient's did who aborted and had some milk. I saw her about three weeks later, with an abscess in each breast.

REPORT OF THE DELEGATES

To attend the Examination of the Medical Class at Dartmouth College, November, A. D., 1856.

To the N. H. Medical Society:—The examination of candidates for the degree of M. D., in the Medical Department of the College, commenced on the 11th day of November. Your delegates having had due notice thereof from the Faculty, were in attendance, and were exceedingly interested in the manner in which the examinations were conducted, and highly gratified to see the ability with which the individual members of the graduating class acquitted themselves.

The Class in attendance during the lecture term was not so numerous as has been the case in years past, but there was a goodly number who proposed to graduate. The whole number of the Class was fifty. Of that number, eleven presented themselves as candidates for the degree of M. D. After a most scrutinizing and systematic examination in the various branches of Medical Literature, in which they gave conclusive evidence of a correct and thorough knowledge; also, the most convincing proof of a thorough and systematic course of instruction: were with the approbation of your delegates, admitted by the Faculty to the honors of the profession, and received their diplomas.

We are happy to report further, that this venerable Institution fully maintains its former high rank, and we congratulate the Alumni and friends of the Dartmouth Medical Department, on the continued prosperity of a school which has for years enjoyed the confidence of a great majority of the profession in New-Hampshire, as well as in many other States of the Union. Your delegates were highly gratified to find the Institution so well supplied in all the departments, with preparations, specimens, models, and drawings. It seemed to be the aim of the Professors, not only to impart to the students their own varied knowledge, but also to lead them *to think and investigate for themselves;* and we take pleasure in saying that, in our opinion, the New-Hampshire Medical Institution, under the management of its able and efficient board of directors and instructors, is entitled to the continued patronage and support of all friends of Medical Education.

W. H. H. MASON, } *Delegates from the*
HOSEA PIERCE, } *N. H. Med. Soc.*

MEMORIAL TO THE LEGISLATURE

For an Amendment of the Law providing for the Registration of Births, Marriages, and Deaths.

To the Honorable Senate and House of Representatives:

The undersigned, a committee charged with the duty, by the New-Hampshire Medical Society, at its recent meeting in this city, respectfully represent that:—

The existing law for the Registration of Births, Marriages, and Deaths, is defective and insufficient for the present condition and wants of the people. That law is mainly defective in not requiring the registration of the *causes* of death, and in furnishing no provision for the transmission of the records made in the several towns and cities, to any central authority, for classification and publication. A registration enactment that takes no cognizance of the causes of death is wanting in one of the most essential provisions which such a law can furnish; and were it in other respects complete, without some place for collecting, arranging, and comparing the facts accumulated in the different parts of the State, it would not be available for the purposes of sanitary investigation and improvement. Other minor defects might be pointed out, but when these most important features are supplied, the additional provisions necessary for the successful operation of the law will be at once apparent.

With these material defects our present registration enactment cannot be sufficient; and we confidently believe that the safety and prosperity of the people of this State require the immediate passage of a law, which, in its future operation, will secure a knowledge of the vital and mortuary condition of our population. To us this measure appears on perfectly reliable evidence, an urgent necessity; but as others, less familiar with the objects to be attained by it, may take a different view, we ask your attention to a few of the reasons upon which this conclusion is based:

A more efficient registration enactment is needed at this time to secure with certainty the interesting civil and legal facts, for which the existing statute was doubtless intended; it is needed to obtain the statistical data requisite for the construction of life-tables, data, till very lately wholly wanting in this country, though essential to the success of many valuable arrangements for the welfare of the people; and it is especially needed to commence among us, and to furnish materials for the successful prosecution of, the great work of sanitary investigation and improvement, by which it is now known on demonstrable evidence, the amount of sickness and mortality in every community may be largely diminished and the period of human life perceptibly extended. And it is to this most useful feature of the solicited law that your attention is particularly invited.

Facts obtained in other places through registration enactments, and the hygienic investigations uniformly associated with their operation, prove conclusively that in all communities—among the sparse residents of country localities as certainly as with denser populations—a large amount of unnecessary disease and mortality occurs, *which might be prevented by a more general diffusion of sanitary knowledge among the people.* On this point, if the occasion would permit, we might here furnish the earnest and positive testimony of great numbers of the most eminent observers of our own and foreign countries, but must content ourselves with a single statement:

The able Sanitary Commission of Massachusetts, upon which were Lemuel Shattuck, Esq., of Boston, an accomplished and well known statistician, and the Hon. Nathaniel P. Banks, jr., after a full survey of all the facts accumulated by statistical and sanitary investigations in this country and in Europe, state most emphatically in their report to the Legislature in 1850:

"*We believe that * * * in every year within this Commonwealth, thousands of lives are lost which might have been saved; that tens of thousands of cases of sickness occur which might have been prevented; that a vast amount of unnecessarily impaired health and of physical debility exist among those not actually confined by sickness; that these preventable evils require an enormous expenditure and loss of money, and impose upon the people unnumbered and immeasurable calamities, pecuniary, social, physical, mental, and moral, which might be avoided; that means exist within our reach, for their mitigation or removal; and that measures for the prevention will effect infinitely more, than remedies for the cure of disease.*"

It has been demonstrated by actual experience in Massachusetts, and on a much broader field, during a longer period, in England, where all classes appear to be interested in the Sanitary Movement, that a large proportion of such unnecessary evils may be averted by legislative investigations and enactments; and the first step towards the accomplishment of this important result has been found to be the establishment of registration laws. We therefore ask that the statute relating to that subject may be so modified as to render it effective for this and all other purposes for which such enactments are appropriate.

F. P. FITCH,
CHARLES P. GAGE,
E. K. WEBSTER,
L. M. KNIGHT,
A. H. ROBINSON,
HARRISON EATON.

Concord, June 24th, 1857.

The above memorial was presented to the Legislature,—referred to the Committee on the Judiciary, and at the suggestion of the petitioners, postponed to the next session.

THE

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY,

SIXTY-EIGHTH ANNIVERSARY,

HELD AT CONCORD, JUNE 1st & 2d, 1858.

MANCHESTER:
PRINTED BY CHARLES F. LIVINGSTON.
1858.

THE

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY,

SIXTY-EIGHTH ANNIVERSARY,

Held at Concord, June 1st and 2d, 1858.

MANCHESTER:
PRINTED BY CHARLES F. LIVINGSTON.
1858.

PROCEEDINGS.

THE NEW HAMPSHIRE STATE MEDICAL SOCIETY held its Sixty-eighth Anniversary at the Court House in Concord, on Tuesday and Wednesday, June 1st and 2d, 1858, the President, GEORGE B. TWITCHELL, M. D., in the Chair.

The following-named gentlemen having been recommended to the Council, were elected Fellows:

Alpheus B. Crosby, M. D., Hanover;
Jesse P. Bancroft, M, D., Concord;
Benjamin F. Skinner, M. D., Enfield;
George T. Brickett, M. D., Alexandria;
E. Proctor Pierce, M. D., ~~Bristol~~; Winchester
Artemas H. Carr, M. D., New Hampton;
James M. Emerson, M. D., Barnstead;
John H. Sanborn, M. D., Meredith Village;
Frank Haley, M. D., Tamworth;
Ebenezer H. Davis, M. D., Manchester;
Thomas Wheat, M. D., Manchester;
Henry Boynton, M. D., Hollis;
George P. Greeley, M. D., Manchester.

Upon the recommendation of the Council, a committee of three was appointed by the President, to report upon the state of the finances, consisting of Drs. P. A. Stackpole, L. M. Knight and C. P. Gage.

Drs. Comings, Hubbard and Smalley were appointed a committee to audit the Treasurer's account.

Drs. J. C. Eastman, L. M. Knight, L. G. Hill, Albert Smith, A. M. Caverly, E. R. Peaslee, W. W. Brown and Alvah Moulton were appointed a Committee on Nominations.

The Report on Surgery was read by Dr. Smalley, and referred to the Committee on Publications.

At twelve o'clock, the President's Address was delivered, and referred to the same committee.

A communication, received from the Indiana State Medical Society, was read and referred to a committee consisting of Drs. Comings, Fitch and Hubbard.

A verbal report from the delegates who attended the meeting of the American Medical Association, was made by Dr. Hubbard.

The Report on Practical Medicine, by Dr. W. H. Thayer, was presented by the Secretary, who, by vote of the Society, gave an abstract, when it was referred to the Committee on Publications.

The Committee on Epidemics reported as not prepared, and was continued.

The Committee on Revision of the By-laws made a Report, containing several amendments, which report was accepted and the amendments acted upon separately; and it was voted to recommit them to the same committee for the publication of a revised edition.

The Committee on Nominations reported the following list of candidates for officers, who were duly elected:

President: Noah Martin, M. D.

Vice President: James B. Abbott, M. D.

Secretary: William W. Brown, M. D.

Treasurer: Luther M. Knight, M. D.

Councillors: C. P. Gage, W. Laighton, S. Bunton, J. P. Whittemore, G. A. Phelps, John Clough, Oliver Goss, E. G. Moore, T. J. W. Pray, Wm. B. Stevens, T. M. Gould, A. M. Caverly, J. R. Smiley and Samuel W. Roberts.

Delegates to Dartmouth College: Paul A. Stackpole and Josiah C. Eastman.

Orators for 1859: John L. Sweat, M. D., and William Laighton, M. D.

Substitutes: Samuel A. Richardson, M. D., and Albert G. Fenner, M. D.

Delegates to the American Medical Association: Silas Cummings, N. W. Oliver, E. K. Webster, A. M. Caverly, Dixi Crosby, R. P. J. Tenney, J. S. Fernald, C. P. Gage and J. C. Eastman.

The Standing Committees were appointed as follows:

On Surgery: William D. Buck, M. D.

On Practical Medicine: Samuel W. Roberts, M. D.

On Obstetrics: Dixi Crosby, M. D.

On Epidemics: F. P. Fitch, M. D.

On Publications: W. W. Brown, Geo. H. Hubbard and E. K. Webster.

On Arrangements: Ezra Carter, A. A. Moulton and L. M. Knight.

The following resolution, reported by the Committee on Financial Affairs, was adopted:

Resolved, That, in order to relieve the embarrassed condition of the finances of the Society, the Treasurer be authorized to pay no expenses of any member beyond an annual supper, after this date, June 1st, 1858.

A letter from Dr. S. Bunton, was read by the Secretary, making an apology for his failure to fulfil his appointment as Orator.

Voted, That Dr. Bunton be excused, and requested to furnish an Essay next year.

Dr. Ham read a portion of his Essay on Debility, when it was voted to defer the reading of the remainder until to-morrow.

Dr. Fitch, from the committee appointed last year to memorialize the Legislature in relation to a law for the proper registration of births, marriages and deaths, made a verbal report, and the committee was continued.

The Report of the Delegates who attended the examination at Dartmouth College, was read and accepted.

On motion of Dr. Twitchell, it was voted, that the original charter of this Society, and a list of its presidents, be printed with the new edition of the by-laws.

At six o'clock, P. M., the Society adjourned till to-morrow, at eight o'clock, A. M.

WEDNESDAY, June 2d, 1858.

The Society met agreeably to adjournment, the President, Hon. Noah Martin, in the Chair.

Dr. Comings, from the committee to consider the circular from the Indiana State Medical Society, reported a recommendation that the Secretary be instructed to exchange copies of our Transactions and By-laws with the Indiana State Medical Society.

Dr. Ham completed the reading of his Essay on Debility, which was referred to the Committee on Publications.

On motion of Dr. Twitchell, the President was requested to furnish for publication in the Transactions, a copy of his remarks made on taking the Chair.

On motion of Dr. Fitch, Drs. Geo. Sanborn, S. L. F. Simpson and T. J. W. Pray were added to the committee to procure a modification of the registration laws.

On motion of Dr. L. G. Hill,

Resolved, That the Secretary be instructed to procure a book or register in which the Fellows may record the time and place of birth and graduation and residence.

Dr. Laighton read a paper on Carbuncle, which was referred to Committee on Publications.

The remainder of the session was occupied in the relation of important cases, and in discussions upon professional subjects, and after a lengthened and profitable session, the Society finally adjourned on Wednesday, at one o'clock, P. M.

ANNUAL ADDRESS

Delivered before the New Hampshire Medical Society, by GEORGE B. TWITCHELL, M. D., *President of the Society.*

GENTLEMEN OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

As one of the requirements of your presiding officer is annually to address you "upon some subject connected with the duties of the profession," I propose at the present time, to submit a few remarks upon the duties which we owe to our profession, to each other, and to the community upon which we are dependent, for whatever of honor or profit we may obtain, in the pursuit of our honorable calling; and, although much that I may say, may be considered by some of those much older in the profession than myself, to be uncalled for, and rather out of place, as delivered to a society composed of men whose years and experience would presuppose them to be fully acquainted with all that relates to their professional conduct, still I would not have my motive misunderstood, which is to do what little I may to raise our profession to that position, which it ought justly to occupy, and to disconnect it with the various forms of empiricism, which too often may be found clinging to its feet, and clogging its onward progress. Happy shall I be should there be one among our number, who, now faltering, may be cheered and encouraged to follow strictly in the path to which honor and duty calls; but, be the result of my remarks what they may, they will not be correctly interpreted, should they not convey the deep sense of the obligation which I owe to you, for your many kindnesses and my zealous interest in the future progress of our profession.

DUTIES TO PROFESSION.

Every true physician must at times have felt the weight of the great responsibility, which he has assumed, pressing heavily upon him; and the question must often come home to his mind, "have I done all in my power to advance the interests of that profession, the pages of whose history contain the records of the deeds of

those great and good men, whose noble and self-sacrificing acts in behalf of their suffering fellow-men have made their names immortal? Happy indeed must he be who can answer this inquiry in the affirmative, but too many of us, I fear, in the deep sense of our own short comings, can but bow our heads and whisper from our saddened hearts a scarcely audible negative.

The substance of all that I have to say, is contained in our Code of Ethics; still, I cannot feel that our time is entirely lost, in commenting upon the more important subjects of that Code; particularly, as we are all so well aware that there are many black sheep in the fold of the medical profession, and that some means should be devised to drive them out and remove from our garments, any stains which we may have received by being brought in contact with them.

Our first duty to the profession is to endeavor to raise its standard and to banish from its ranks all who are unworthy to share its honors: to do this we must in the first place, discourage young men from entering the study of medicine, without the proper preparatory education; many have an idea, that a little smattering of Latin or Greek, is all that is necessary; they may be very deficient in many of the rudimentary branches, having no knowledge of the higher branches of mathematics, philosophy, astronomy or general literature.

I would not have it supposed that I consider a thorough knowledge of these studies necessary in an applicant for admission into our office, for that would be impossible, but I feel that we ought at least, to require a general knowledge of all these subjects; and more than this, we should learn something in regard to the habits of the pupil; as to whether he has been studious, and has fixed habits of application; should our inquiries show the applicant to be deficient in these particulars, it is our duty to discourage his idea of entering the medical profession. I should always advise a collegiate education as a prerequisite for the study of medicine; I feel that a man who has been well grounded in all the branches of general knowledge, and by the study of the higher mathematics and the languages so disciplined the mind, that he may apply it at will, for any length of time, to any one subject, to have advantages over a man without this prior training, which

no after course of study can balance. Having once admitted a young man into our office, do not let us ruin his mind and destroy all habits of application, which he may have acquired, by neglect; but let us have some fixed plan of study, and let our pupil see that we feel an interest in him and a desire for his advancement; have a systematic course of study marked out, and let this course be strictly followed; students, particularly those more advanced, are too often desirous to skip over general therapeutics and those diseases which they may not be expected to meet often in practice, for those subjects which *they* may consider of more importance; let them be cautioned against such a course as ruinous to all habits of close observation; it begets a habit of only observing the surface of things, and leaving the deep truth undiscovered; there is much that is dry in medicine, but because dry it is none the less important, and should never be neglected; there should be no desire to hurry into the profession, no time is gained, but much lost, by entering upon the practice of medicine without a proper medical education; the cares and perplexities of general practice are not the circumstances most favorable to recover what has been lost by neglected opportunities. Have regular recitations, and let no pupil be absent from recitations without good reason; when circumstances will allow it, permit him to see patients with us, let him get a practical knowledge of disease by its thorough examination at the bedside, and if the case should terminate fatally, when possible, let the diagnosis made during life be confirmed or disproved by post mortem examinations; pathological anatomy is too much neglected by us all; no examination post mortem can be made, no matter how clear the case may be during life, without our deriving some benefit from it. Having fulfilled our duty to the student, I would suggest a change in the requirements for graduating; instead of relying upon a term of three years study as *prima facia* evidence of a proper medical education for graduating, I would have a more thorough examination, and only admit those to the ranks of the profession who are qualified, regardless of the time spent in the study. I would not have it supposed for a moment, that I think a three years term of study, however closely a student may apply himself, more than adequate to acquire a proper knowledge of

the profession, such as would justify a college in granting him a diploma; but, notwithstanding, how many of our graduates have not even studied two years! With very many from this section of the country certainly, all the winter months are spent in teaching; still they have no difficulty in obtaining certificates of the full three years' study; therefore let us urge upon colleges to make more thorough examinations, and to regard less the time spent, or rather, too often, misspent, in reading medicine; the result will be on the one hand possibly fewer graduates, but those of a higher grade, and, on the other hand, fewer quacks who disgrace the profession, and bring dishonor upon our schools, under cover of a diploma; no matter how much the ignorant Homeopathic or Botanic physician derides the regular physician, he feels there is great virtue in the title of Doctor of Medicine, and it matters not whether he can boast of a diploma or not, the M. D. is affixed to his name. Place the degree too high for the reach of such men, and the standard of our profession will be raised, and we shall be relieved of the necessity of consulting with men, who though ignorant of the first principles of the profession, can claim equal rights with ourselves, and show the same certificate of competency; thus, and thus only, shall be we able to exalt our noble profession to the place which it should justly hold in the minds of the people, and in this, more than in any other way, shall we be able to kill the hydra-headed monster, Quackery.

Second. Do nothing which can in any way bring dishonor upon the profession; give no encouragement under any circumstances to any of the multifarious forms of empiricism. I well know the difficulty under which many of us labor in standing out against the many popular delusions of the day, and this difficulty is made the greater by the course pursued by some members of our own body, for upon our refusal to consult with any of these self-styled physicians, we are told that Dr. A. or Dr. B., older men than ourselves, never refuse to meet them, and surprise is manifested that we should, and possibly we may be condemned by some of our friends for taking such a stand, but if we have any regard for the reputation and standing of our profession, we can pursue no other course, for by holding professional intercourse with ignorant pretenders, we do not raise them to a higher posi-

tion among men, but lower ourselves and degrade our profession to the rank which they hold; whenever, under unavoidable circumstances, you may be brought in contact with them at the bedside of a patient, either at once decline to have any consultation or make any prescription, at the same time stating the reason, or should the case require prompt attention, address your inquiries and remarks to the friends and administer your own remedy, and then decline any further attendance unless the pretender is dismissed. Let us *all* be consistent in this course, and I feel that we may be assured that the death blow is given to quackery, for the people will not run the risk of losing the advice of those whose acquirements they respect, (for ignorance always respects learning, wherever it may be found,) for the sake of encouraging some knavish boaster. I would not by any means advise any one to run a Quixotic tilt against every quack whom he may encounter, for in such a course he will always receive more injury than he inflicts, but I should advise every one on all proper occasions to enlighten his community upon the errors of all the irregular systems of medicine, and, as far as may be, demonstrate the advantages which the legitimate system of medicine holds over the illegitimate; never under any circumstances let any pique or ill will to the man, tempt us to make the matter personal, so as to give color to the charge, that our aim is not to destroy quackery, but to overthrow a more successful rival, for this at once will give countenance to the cry of persecution, and what better aliment can we administer to the advocate of any false system of medicine or religion than persecution? It is the food best calculated to nourish and give it notoriety. Never give "aid and comfort" to quackery by using in your practice any of the compounds or medicines used by the irregular physician, when other medicines will answer as well; too many of us are careless in this particular, I fear, and will give lobelia emetics, or administer Thomsonian hot drops, or the sugar pellets of the Homeopathist at the request of their patient; such persons should remember that the passer of counterfeit coin is equally guilty with the counterfeiter himself, and the physician who appropriates to himself the nostrums of the empiric, will be ranked with him, and should be shunned by all who have any regard for the honor and dignity of the profes-

sion. "Can a man touch pitch and not be defiled?" And never under any circumstances should we allow our names to be used in recommendation of any patent or secret remedy, for nothing, it is well known, will better tend to give currency to their false issues, than a good endorser; and no means will be left untried to obtain the endorsement of the best names in our ranks, which may be in their reach; the formula will be given us, by which they profess to have prepared the medicine, which formula may be very well for many purposes, and we are asked to give a certificate of its virtues, which we are assured shall never appear in print; but should we, in a moment of weakness yield, we may shortly see our names paraded through the daily papers as guaranteeing the virtues of the famous nostrum, and have no remedy for the use of our influence, in favor of views which we abhor, as the receipt has passed from the original proprietor, who with his interest has conveyed all the papers pertaining to the medicine, without the agreement which he made with us.

Therefore, never permit yourselves to be cajoled into giving your name in aid of any secret remedy whatever, and never allow yourself to act as agent in dispensing any of these cure-alls.

I would touch upon another matter, the enormity of which, I very much fear, is not clearly understood; I refer to the practice of procuring criminal abortion. I feel great delicacy in referring to a subject of this kind, before such an honorable body as this, as it might be supposed that no one who takes such an interest in his profession, as to induce him to join a society, whose object is our mutual improvement, would ever be guilty of committing a deed of so great criminality as this; I know not, indeed I cannot believe, that any one of our number has ever committed such an act, still, being well aware, that there are those who call themselves honorable men, and rank high in the community, who on any and almost all occasions which may present themselves, will do this great wickedness, I cannot pass it over, without raising my voice in warning to those who may be tempted to do a deed, the moral guilt of which is not equalled by any crime which may be committed against the law of God or man. I know that men are wont to quiet their consciences by professing to believe the old idea that before motion is felt the fœtus is not endowed

with life; I say professing to believe, for they know full well that the principle of life is as great at the moment of conception, as at any other period of fœtal life; to deny this would be to assume that life or the principle of life increases with age, and the older the person upon whom the crime of murder is committed, the greater the moral guilt, an idea which is preposterous. What is life as manifested in the human being, but the endowing of organic matter with a thinking soul, and how can we separate the soul from animal life? Destroy animal or organic life and we separate the soul from the body; what authority have we for saying that before the fourth or fifth month, this being has not a soul? We all know that at the moment of conception a new being is created, which, though retained in the mother, is as independent of her as the chick in the egg, as is proved by the child in utero living after the death of its mother, and its life being preserved by the Cæsarian Section being made upon the mother some minutes after her death; it has its own circulatory organs, which act entirely independent of those of the mother; it is true it derived its nourishment from the blood of the mother, but no more so than the infant does after birth; the one receives blood through the medium of the placenta, the other forms blood from the milk derived from the mother's breast; the source of growth in both are the same, viz: the maternal blood. With this view of the matter, which certainly cannot be contradicted, in what does the act of causing abortion differ from infanticide? a crime that seems more revolting than any other, as it is committed upon a defenceless being whom God has taught to look up to us for protection, and whose innocence, one would suppose, would palsy the hand which is raised to strike. I will not refer to the human laws made to protect the human embryo, for the man whose hand is not stayed by the penalty he must surely pay, for trampling under foot that law of God which says "Thou shalt not kill," will certainly not be deterred by any human law.

In the third place, we may fulfil our duty to the profession by using all the means in our reach for extending our knowledge. The young graduate is too apt to imagine his education finished upon receiving his diploma, and he thinks a library only useful

to be referred to whenever a difficult case may occur in his practice; he does not see the importance of a continued systematic course of study; the first years of his professional life are thus lost, and in after years when the cares and perplexities of an increasing practice crowd upon him, he will feel how much he has omitted that might have been done. I would therefore urge upon all our younger members, now in their time of leisure, by a regular course of study to lay a foundation for future usefulness and reputation; there is no regal road to knowledge, and very rarely does a man occupy a position of honor among men, without purchasing that distinction by years of patient study and toil. By a slight calculation, we may soon see how much may be done by us all; let us decide to read ten pages per day, and this is a very small amount, and at the end of one month, excluding the Sabbath, we have read two hundred and forty pages, and in one year we have read two thousand eight hundred and eighty pages, equal to nearly four volumes of the size of Watson's practice of medicine; but are there not many of us who do not do as much as this? Very many, I might say most of us, have abundant time to do more, besides keeping ourselves posted up in all that is new in our medical journals, for I feel that a man cannot be considered a true physician, who does not take at least one of the best of the various medical journals of the day; how else can he know what is transpiring in the medical world?

In our art no one can be perfect; in no science has there been more discoveries during the last ten years than in that of medicine. Ether, than which, nothing has done more to relieve the sufferings of the unfortunate or strike terror from the breast of those who may be called upon to submit themselves to the hands of the surgeon, is one of these steps onward in the cause of of suffering humanity, which can only be equalled by the discovery of vaccination. The silver ligature, particularly its application to vesico-vaginal fistula, will make the name of Sims almost immortal; for by this means, a loathsome disease, the opprobria of medicine, has been brought completely under our control; this is another of these important discoveries the knowledge of which the journal makes known to all. And not only would I have every one use every means in his power to charge his mind with such

medical facts as may be of use to himself, but I would urge upon all as a duty they owe to the community, to keep such a record or note book as will give them all the benefit of their own experience; for we all of us often meet with cases having some peculiarities, and that man who closely observes these peculiarities and the termination of the case, will be the most successful in his practice, as by this means he will be the better able to anticipate any changes favorable or otherwise, and so better apply his remedy, or, by his true prognosis, give himself such a reputation with his brethren and the community as will make his opinion sought for; I well know that it is difficult, and with many in country practice impossible, to keep a full report of every case with which they may meet, but this is not absolutely necessary, though it would be well to do so; but we can all of us keep such a memorandum of all those cases which present any important facts, either in symptoms or treatment, as will keep these facts within our reach, for should we trust to memory alone, they would be too often crowded from our minds by the accumulating cares of business, and we thus lose the benefit of that experience, which most is necessary to make us successful in a profession which is based upon experience as well as science, for, although the art of medicine is found upon immutable law, still much of our practice is and ever must be empirical.

DUTIES TO EACH OTHER.

In our professional intercourse with each other, we cannot be too particular; the best rule of action that we can have, is the golden rule, "do unto others as you would that others should do unto you;" let us all be governed by this precept and the differences which too often exist among physicians in our country towns would disappear. I very well know that most of the instances of ill feeling among physicians grow out of the officiousness of well-intentioned but injudicious lay friends; all of us, I doubt not, have at times been provoked if not exasperated by the knowledge that some meddlesome neighbor has visited our patient or some member of the family, and endeavored to instil into their minds a distrust of the attending, at the same time lauding some other, physician; and are we not too apt, on such occasions, to let our

exasperation carry us beyond the intermeddler and vent itself upon, generally, the innocent cause? This begets a distrust which finally ripens into open enmity, a state of feeling which is to be much deplored, and might often, I doubt not, be prevented, should we caution our too often injudicious friends upon the subject; and upon the first appearance of misunderstanding, asking an explanation of our brother; never permit any one, certainly never countenance any one, in your presence, in disparaging any other physician, no matter upon what terms you may be, unless he has so conducted himself as to throw himself beyond the pale of honorable men, and even then the least notice taken of him the better. In the consulting room be very cautious in expressing an opinion at variance with that of the attending physician; should our opinion differ, state the fact in private to the physician, and only at the request of the patient or the friends, make known any difference of opinion, and then in such a manner, if possible, as will not wound the feelings of the physician, or injure his reputation with the patient and family; avoid making changes in the medicines to be administered, unless there is good reason for the change; have no hesitation in advising a continuance of the treatment should we not feel that we could advise something decidedly better; make no change for the sake of changing; should a change be deemed advisable, never dispense your own medicines unless particularly requested so to do by the attending physician; avoid any ostentatious display of superior knowledge, in fact do nothing which would tend in any way to shake the confidence of the patient in his physician, and thereby induce him to employ you. Should you by chance, be called upon to attend a family, who ordinarily employ another, in his absence, only continue that attendance until his return, unless specially requested by the patient or friends; as a general rule, never call upon the patient of another physician, but should necessity bring you into his presence, positively decline giving any opinion or advice in regard to his case; should you be called upon to attend the patient of another in his absence, only prescribe for him in case there should be some sudden change or aggravation of the disease, which would make it unsafe to await the return of his regular attendant, and let not a hint escape you, that the case has not been fully understood or

properly treated, unless the patient has been under the care of some quack, then I feel it to be our duty to condemn any improper treatment, and warn the patient of the danger of continuing under the advice of the ignorant attendant.

Have no professional secrets from your brother physicians, by which you hope or pretend to excel them, but whatever you may have learned by study or experience, freely make known, either in familiar intercourse or through the medium of some of the medical journals. Never suffer a compound or medicine to bear your own name, for though you make no secret of its preparation, still it has the appearance of evil, and ranks you with him who hopes to better his fortune, by appealing to the feelings of a too credulous public. Whatever you do, do openly,—"hide not your light under a bushel, but let it so shine as to be seen of men." Avoid as derogatory to the profession the practice of what are called specialities; as long as you continue in the profession, give your attention to all branches coming under your charge, make no pretence of understanding one branch, as diseases of the lungs, &c., better than your neighbor; this is too often done for the sake of notoriety and as an entering wedge by which a cunning and designing man may encroach upon the field of another, and by degrees supplant him; rest assured that a discerning public will soon discover whatever there may be of good in you, without the aid of puffs or advertisements, and although often a superficial man may by these means acquire a reputation, it is but ephemeral, whereas the reputation gained by honorable and patient application to duty will be lasting, increasing with years, and will even live after our bones have crumbled in the dust, being an heritage more valuable in the eyes of our posterity than silver and gold. Avoid all ostentatious display in the practice of medicine or surgery; seek not to dazzle the eyes of the multitude by the appearance of great learning, nor be tempted to recklessly use the knife for the sake of exhibiting your dexterity in performing some capital operation; remember that there is more credit due you from those whose opinion you would value, in having saved a badly injured limb, than there would be in having amputated it; the merest tyro in surgery may remove a limb, but it requires a surgeon of experience and good judgment to decide when and how a

limb may be saved; give your attention more to conservative surgery than to operative; 'tis true by this means you may not so often gain the applause of the public, but you will obtain that which is of more value, the approval of your own conscience. Another duty which I feel we owe not only to each other, but to our profession, is that of associating together; by our meetings in state and county societies, our interest in our profession and each other is kept alive, and we gain strength by the friendly interchange of opinion and thought that these gatherings occasion, and we return to our duties with renewed vigor and a firmer determination to acquire the confidence, and merit the honors, which our associates are always ready to distribute among those who are deemed worthy; such associating also tends to promote brotherly feeling, and will do much to remove that spirit of rivalry which too often exists among practitioners in the same town; it also gives us standing with the community; by meetings properly conducted many valuable facts occurring in the practice of the members, which would otherwise be lost, are retained, and become steps onward in the path of progress. That our societies are all that they should be, or all that they might be, I would not pretend, but that they are doing much good, all must allow; most of all the important medical facts and discoveries which give dignity and honor to our profession, have been brought to light through the medium of some medical society; and we all know that by concerted action much more can be accomplished than by individual exertion; let each member of the society feel that he has a duty to perform for the benefit of his fellows, and let him, as far as circumstances will permit, cheerfully perform all the duties allotted to him; avoid all wrangling, but give the whole time of the meetings to the discussion of matters which are of importance to the advancement of our profession; by this means you will raise the dignity of the profession and society, and will offer strong inducements for all to unite in urging onward the good work.

DUTIES TO THE COMMUNITY.

Among the various duties which we owe to the community, I feel the greatest is to enlighten them as far as possible upon matters of hygiene. There can be no doubt, but that a large per

centage of the diseases under which poor humanity suffers, is directly traceable to the errors in diet and customs which an imperious fashion has imposed upon civilized life. Is it at all strange that the stomach should rebel against the task, so often imposed upon it, of working into a homogeneous whole the great variety of articles which are daily forced into it, generally without even the previous slight preparation of proper mastication? For who that has observed the railroad speed with which food is swallowed at our public tables, can doubt but that much of it is bolted without even the pretence of mastication, and instead of being properly moistened by the fluid intended for that purpose — viz. the saliva — at a proper temperature, it is washed down by strong tea or coffee at a temperature of 212°, or, as is too often the case, by alcoholic or malted liquors, which act upon the overtasked mucous membrane as the scourge to the jaded horse, exciting it to increased temporary exertion, at the expense of consequent prostration, and yet we think it strange that we have become so conscious that we possess a stomach, and wonder what we have done that should have caused us to suffer from indigestion and all its attendant ills. The wonder is that we live at all, that the stomach has not long since refused to perform the almost herculean task imposed upon it.

Has the chemist in his laboratory ever discovered a fluid which would have power to work into a uniform mass ingredients of an entirely opposite character, the acid and the alkali, the albumen and the gum, the earthy and the animal matter? and yet we expect, aye indeed, and daily demand, of the laboratory of the human system such a solvent; is it to be wondered at, that this overtasked organshould break down under this great labor?

Can there be any doubt but that diseases of the throat and air passages are very much increased by our modes of heating and ventilating our dwelling houses and public buildings? Ventilating, did I say! rather, non-ventilating; for in too many instances the great desideratum would seem to be, in real Yankee thriftiness, how to live at the least expenditure of oxygen; to prevent any waste the fireplaces must be closed, else perchance it might escape up chimney, the windows must be doubled, and the doors listed for fear that more oxygen than was absolutely necessary to

sustain life should be used. I have sometimes thought that the air-tight stove, which may now be found in almost every house, to be the greatest curse which could be visited upon man; to it, certainly, may be charged the early death of so many of our population, by that rapidly increasing disease, consumption; and yet how few of our number have moral courage sufficient to order its removal from the sick room; you had far better dispense with all your medicines, and give your patient a full supply of fresh air, and my word for it, you will find them more rapidly recovering, than under the most healing drugs; if you are tempted to try the virtue of infinitessimals, apply not the rule to that most potent medical agent oxygen; this should always be administered (and it is an agent, which, like the various nostrums of the day, is applicable to all diseases,) in heroic doses.

Our modern fashion of dress too, particularly with females, is a most frequent cause of disease; to what, but the great weight of skirts, which the abdominal walls are obliged to sustain, is to be ascribed the fact, that so few of our women are free from the various forms of uterine disease? Is it at all strange that there should be prolapsus, or anteversion, or retroversion, in that female who moves about with the direct pressure downwards upon the contents of the abdomen of from five to eight pounds of skirts!

A few years since, the fashionable lady was gradually destroying herself, and making her life miserable, by compressing the chest, and thereby destroying the functions of the lungs, by tight lacing; now, or until quite recently, she has been ruining her health, and unfitting herself for carrying out the object of her creation, by transferring the compression from the chest to the abdomen, thereby destroying the functions of the uterine organs. Right glad am I that instead of six or eight skirts, which heretofore has been necessary to meet the requirements of fashion in disfiguring the human form, hoops have been introduced, for though they equally disfigure the form, they do away with the necessity of so great weight, and therefore relieve the abdomen. Again, how many of our modern women have unfitted themselves for performing the duties of mothers, by having prevented the due development of the mamma; in early childhood, before nature has

thought best to give the contour of womanhood to the human bust, art steps in and by the addition of a few ounces of cotton, the work is accomplished, and the girl, in appearance becomes a woman; by the constant pressure of this though slight weight, the undeveloped nipple is prevented from duly forming, so that when nature has given a full supply of nourishment for the new-formed being, it is found that art has destroyed the means by which this being is to obtain its nourishment; and as a consequence, the lactiferous ducts not being relieved of the constantly increasing secretion, become overcharged, and inflammation, suppuration and all its attendant ills are the consequence.

I have mentioned but a few of the more prominent diseases, which are attendant upon errors in our domestic habits; many others might be mentioned, but it is not necessary for my purpose, which is to show that not the slightest of the duties of the physician is to warn the community against the causes of diseases, and instruct them how they may be prevented.

A few words in regard to the conduct of the physician in the sick room, and towards his patient, and I have done.

We should always bear in mind the fact, that however slight and trivial the case of the patient to whom we are called may be, still to him and his friends it is a serious matter, and therefore we must not by our levity or careless manner of making an examination, give an appearance of slighting the case, if we do most surely shall we lose their confidence, or cause them to neglect sending for us in important cases until too late to be of service; neither must we on the other hand, as I fear is too often done, magnify the case for the sake of obtaining the more credit for restoring the patient to health in a short time; but if after a careful examination, the disease is really found to be slight, and to require little or no medical treatment, fear not to say so plainly, and you will without doubt obtain the respect and confidence of all those whose good opinion is worth having; of all things gain not the reputation of always having very sick patients who always recover! Let your conduct in the sick room be firm and decided should occasion require it; be not unduly swayed by the advice of the friends, in your opinion or treatment, though you should patiently receive and carefully weigh all that may be said in re-

gard to any peculiarity or idiosyncrasy in the disposition of the patient, as it will often be of great use in the treatment of the case; never administer a remedy without some decided indication for its use; be always guided by the symptoms and not by the name of the disease in selecting your remedies. I remember hearing one of our most noted and worthy physicians say, that it would be much better for the patient, that there should be no name for disease, as then the symptoms would be the more carefully noticed, and in consequence the case more correctly treated. In your demeanor towards your patient, be always strictly modest and unobtrusive; never shock the purity of gentle woman by using an indelicate expression; always remember how great the sacrifice of feeling they are obliged to make before they can consent to call upon us for aid in the most trying circumstances under which they may be placed; avoid in such cases all unnecessary interference; let the patient feel that she is in charge of an honorable man, who will not take advantage of her situation to wound her inborn purity by word or deed. Too often, I fear, has the timid woman's cheek been made to burn and her heart to palpitate, by being obliged to listen to the ribald jest as it is bandied from physician to nurse; let such an one remember that the circumstances have not changed his relation to the patient, and that conduct which would be unbecoming and immodest under ordinary circumstances is none the less so at the moment that woman in her agony has most need of our tender and gentle sympathy!

It is this, to use a lenient expression, carelessness, in words and acts, on the part of many of our number, that has excited the popular clamor for females to attend upon females in the various diseases to which their sex is liable. I would caution you, in closing, against ever divulging the events of the sick room; whatever should come to your knowledge in your intercourse with your patients, should be held as sacred as the secrets of the confessional. And never be tempted by any injury which you may have received from an ungrateful patient, to retaliate by disclosing any facts that may have come to your knowledge in a professional capacity, which if made public would injure the reputation of the patient or his family.

I have thus, at a greater length than I intended, touched upon

many matters which I have felt should be more prominently presented to our notice. To many, my remarks would seem more properly to have been presented to a class of graduates, than to a society of physicians; but when they remember how many departures from the spirit of our Code of Ethics are daily met with, they cannot but see the propriety of endorsing in some more decided manner its precepts; the more particularly as very many of our number are just entering upon a life filled with cares and responsibilities, who will be greatly strengthened by having ineffaceably traced upon their hearts the principles of this code; for in the language of another, "I do honestly believe, that to a young physician going forth into life, full of moral conflict, the wearing of this ægis would be one of his surest defences; that, next to the holy Scriptures, and the grace of God, it would serve most effectually to guard him from evil."

REPORT

OF THE

COMMITTEE ON PRACTICAL MEDICINE.

FELLOWS OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

Being appointed a Committee on Practical Medicine at the last annual meeting of the society, it appeared to me that the most useful communication I could make to you, would be a report of the history of some one disease, as it has presented itself in New Hampshire within the observation of the fellows and of the members of the medical profession generally. A very severe epidemic of typhoid fever, which had prevailed in the previous year (1856) in some parts of Cheshire county, turned my attention to that disease; and I decided to ask the coöperation of the physicians of New Hampshire in preparing a report on typhoid fever, as it appeared in the state in the years 1856 and 1857. With this view, I published, about nine months ago, in the New Hampshire Journal of Medicine and in the Boston Medical and Surgical Journal, a circular letter to the physicians of New Hampshire, describing the plan of my report, and earnestly requesting them to forward this spring a synopsis of their cases, with certain particulars which were specified. In April of this year—not having received one communication from any source—I published in the New Hampshire Journal another circular to the profession, and addressed letters to a number of physicians in this immediate neighborhood. From some of the gentlemen whom I addressed, I have received prompt and very satisfactory replies; but I regret to say, that only two physicians besides those to whom I wrote, have made any communication to me on the subject. The imperfect result of my efforts has disappointed, but not surprised me; for I am well aware that whenever a full report of an epidemic, prevailing throughout a state, or in a considerable number of towns, is made by a medical man, its materials are obtained only by repeated personal appli-

cations to the physicians who have had it under their observation. Want of time, want of interest, or diffidence, one or more of these objections, too frequently prevent most physicians from seconding the efforts of any one, who is endeavoring to contribute the results of medical experience of any disease in his county or state. I would have made many more personal applications, and repeated them until some reply was received from the majority of physicians in the state, had not my time been too fully occupied to allow me to address letter after letter to the numerous individuals of our society and the profession in New Hampshire. I was constrained to make the most of the materials which were received; and while the report will not present—as it might have done, with general aid—a history of the typhoid fever of 1856–7, it will be found to have a considerable degree of interest, and will, at all events, be the means of bringing up for discussion a very important subject.

I have made a synopsis of the cases of fever which were reported to me, having regard only to a few of the most important points belonging to them. As few physicians keep records of their cases, it was obviously impossible to obtain anything like a complete history of them, even if desirable. They were therefore requested to furnish the number of their cases, the sex and age of each patient, the date, duration and result, with the prominent character of each case. That is to say, the three symptoms, diarrhœa, delirium and cough, were taken as the types of three classes of symptoms, and they were invited to state in each case whether one or all of these symptoms were present, or which predominated, thereby indicating, as much as possible, the especial character of the epidemic, whether the burden of the disease was on the brain, the lungs, or the abdominal organs. No physician can have been much acquainted with typhoid fever, without discovering that in different years the disease may present quite different characters; that one year the cases generally will be marked by a severe diarrhœa, and the cough be very slight or absent; while in another year, congestion of the lungs may be a very prominent and troublesome symptom, and many cases of hepatization may occur as a complication or a sequel; or, both diarrhœa and pulmonary congestion may be unimportant, and headach, delirium and stupor may be serious and dangerous symptoms. Undoubtedly

there are many places, or many years, where there is no marked predominance of one or another of these classes of symptoms, and no uniformity in the many individual cases which come under our notice; but, had we the good fortune to obtain a true picture of the disease in all the state, the subject would have a clearer light poured upon it than it has perhaps ever received. The broader the view we can take, the more likely are we to discover the system in which it operates; and a system of universal observation is the only course by which we can expect to learn whatever is to be learned of the causes of fever, as of many other diseases. There can be no doubt that fever is a disease that greater knowledge might enable us to prevent to a very considerable extent; medical and sanitary researches have proved that to the satisfaction of all cultivated physicians. Who shall say that a closer and more thorough scrutiny of the disease, in which all medical men combine, may not give us the means of still further diminishing its prevalence throughout the country?

The report herewith presented is based upon the cases of Drs. Twitchell, Carpenter, Kittredge, Johnson and Thayer, of Keene, Comings, of West Swanzey, Caverly, of Troy, Perkins, of Marlow, Hazelton, late of Stoddard, all in Cheshire county, and Drs. Whittemore, of Chester, and Carswell, of East Weare. These gentlemen have cordially aided me with all the materials at their command, and some of them have given their views of the disease and its treatment, which will be found to form a very interesting part of the report.

Respectfully submitting these remarks, with the following communication on fever,

I remain your friend and fellow,

W. H. Thayer.

Keene, June 1, 1858.

TYPHOID FEVER.

In the year 1856, the town of Marlow, in Cheshire county, was the seat of an epidemic of typhoid fever, of very unusual severity. The neighboring towns, of Stoddard and Gilsum, had also a larger number of cases of fever than usual, but the weight of the epidemic fell upon Marlow, and especially upon the village, not the

outlying farms. In the same year, Sullivan, Nelson, Roxbury, Chesterfield, Westmoreland, Marlborough, Swanzey and Keene, lying all together, directly south of Marlow, had no marked epidemic of the disease, nor have I learned of any similar visitation anywhere else. It will be perceived, however, from what has already been said, that there may have been severe epidemics in other parts of the state; this report can only answer for Cheshire county.

These towns, in the southwestern part of New Hampshire, lie on and among successive ranges of high, rocky and barren hills, gradually increasing in their altitude in going east from the Connecticut river and north from Massachusetts. Stoddard is on the summit of the high and almost bare rocks that form the watershed between the Connecticut and the Merrimack. Marlow has its boundaries on part of the same range of hills, but the *village* of that name is several hundred feet lower than Stoddard, part way down the western side of the hills, on a plain half a mile or more in width, through which runs the Ashuelot river. This river rises in the hills a little above Marlow, runs through the village, where it has a large millpond, and continues through a narrow valley, through Gilsum, Keene, Swanzey, Winchester and Hinsdale, about thirty-five miles, to the Connecticut.

Dr. Perkins, of Marlow, (from whom I have received an excellent letter on the subject) says, "The town contains between seven and eight hundred inhabitants. The character of the soil is the hardest kind of New Hampshire granite—a very poor farming town, hilly and rocky. No meadow lands are upon the river banks, nor much low swampy ground. The current of the streams is generally rapid, though there is a mile or so of rather sluggish water running through the village—a dry, sandy plain—with fall enough, however, for two water-powers in that distance. I came to the town in 1850, and for the first six years there were no more than from three to six cases yearly, and not one of them terminated fatally. Furthermore, *not one of these cases occurred in this village*, which contains nearly one half the inhabitants of the town; they were all upon the hill farms. I had begun to think it was impossible to have typhoid fever upon this dry, sandy, gravelly plain; but you are aware that *the epidemic of* 1856 *arose in the village and was confined almost entirely to it.*"

On the 11th of July, 1856, the first case of fever appeared in the village of Marlow; and the last one began on the 17th of December of the same year. In the five months between these two dates, in a village of four hundred inhabitants, there were ninety cases under Dr. Perkins's care, of which nine were fatal. I saw several of the patients in consultation with that gentleman, and I cannot forbear to express my admiration of the fortitude he exhibited under the pressure of a heavy responsibility, a weight of care that was never lifted for five weary months. The cases were generally severe; seventy of them occurred in three successive months of that time; and it may well be imagined that it would require a clear head, a cheerful spirit, and untiring patience and perseverance, to say nothing of a strong body, to go through such a half year with credit to himself and to the satisfaction of his patients.

The epidemic at Marlow was characterized by unusual prostration: profuse sweating, feeble pulse and great tolerance of stimulants from an early stage. The other symptoms of typhoid fever, rose spots, diarrhœa, tympanites, etc., were present, but less marked. Hœmorrhage from the bowels occurred in a number of cases, and was several times the cause of death. Dr. Perkins says, "In certain respects the epidemic differed from the ordinary type of typhoid fever: diarrhœa was a much less prominent symptom than usual; in not one of the fatal cases was diarrhœa troublesome; tympanites was more or less marked in all the cases; delirium was not a very prominent symptom, though present in a mild form in most of the severe cases; there were but two or three cases in which the patient would not, when fully roused, answer questions and talk intelligently. The secretions generally were not more depraved than usual in typhoid fever, if as much so: frequently there was no sordes on the teeth; in the second fatal case the tongue was scarcely coated at all—moist all the time. But the constant and characteristic symptom of the disease was *prostration—sinking*, indicated by an extremely feeble, rapid, compressible pulse, and colliquative perspiration. This last symptom became the terror of friends and nurses; and it was constantly ringing in my ears, that such or such a patient had begun to 'sweat.'

"The treatment, from the commencement of the epidemic to its close, was the same. And were I to go through another of the

same character, I should rely on the same remedies, viz. quinine, turpentine, brandy and beef tea. The quantity of quinine and brandy was governed by the frequency and feebleness of the pulse, and the amount of perspiration in particular. The precise number of grains of quinine administered in the twenty-four hours I cannot state nearer than to say, that in the severer cases it was dealt out in doses of about an even teaspoonful, given every second, third or fourth hour. If given once in four hours, generally Huxham's tincture or a decoction of the bark itself was administered between the doses of quinine. At the same time, brandy was taken without measure—I hardly dare state the amount—a pint was frequently a short allowance for the twenty-four hours. By this treatment, I think that many lives were saved, which would otherwise have been inevitably lost. The good effects of the treatment were often so marked as to be appreciated by the nurses, and sometimes by the patients themselves,—who would call for more quinine or more brandy, as they felt themselves sinking, with the cold perspiration oozing from every pore. Turpentine also stands high in my estimation. The indications for its use were with me a dry tongue and tympanitic state of the bowels; I used it when the tongue was dry, whether coated or not—though I think that its beneficial effects were most marked when the tongue was red, smooth and dry. Turpentine stupes and injections were also beneficially used."

"The cases of recovery were mostly convalescent in the third or fourth week, a few in the second, and still fewer were protracted to the sixth and seventh weeks. Of the fatal cases, two terminated in the first week, five in the second, one in the third, and one in the fourth."

"I had not more than half a dozen cases of typhoid fever in 1857—of about the usual character—all terminating in recovery. From my experience in 1856, I was led to deal more freely in tonics and stimulants, than I had done previously to that year. In 1858 I have had no cases; and I would here say, that no case of typhoid fever has ever occurred in my practice in the months of January, February, March, April, May and June."

There was no circumstance in the year 1856, or in the village of Marlow, that offered any explanation of the cause of this severe

epidemic. Of a population of four hundred persons, ninety were were sick, and nine died. The topographical characters of Marlow have already been described. There is no unwholesome influence known to exist there, and we are not able to discover that any condition existed which had not been present in the previous six years, during which (and it may have been so still earlier — before Dr. Perkins came to the town,) no case of typhoid fever had occurred. The summer of 1856 was very hot and dry, until sometime in the course of August, when heavy rains began and continued. The weather did not differ materially from that of many other seasons, and it was the same in all other parts of New England; therefore, we cannot believe that anything in the season can be considered as operating in the production of the fever in Marlow. It is well known that from time to time towns and villages in New England are visited with severe epidemics of typhoid fever, without any apparent local or temporary cause. And there seems no probability that we shall ever be able to interpret the now obscure nature of the course of epidemics, until the members of our profession everywhere are willing to record and collate their yearly experience in this and other epidemic diseases. At present, we are constrained to say, that though the causes of such visitations might appear if we could concentrate all the facts relating to them, we are with our present knowledge totally in the dark. In the case of Marlow, there is one view which may be suggested as explanatory of the epidemic. It is this: typhoid fever, like the other self-limited diseases, very rarely attacks the same individual a second time; again, there are few persons that escape an attack of it who live to middle age. Now, we know that for six years there had not been a case in the village of Marlow — and it may be, for some years before; so that the number of persons liable to the disease was year by year increasing. It may be, therefore, that the epidemic of 1856 was so very extensive, chiefly because there was an unusually large number of persons who were subject to it, in consequence of never having had it. This view can be substantiated or disproved, if observers will take the pains to ascertain who of the families they attend have had typhoid fever and who have not.

In Stoddard, which joins Marlow on the southeast, and is situ-

ated on the summits of bare, rocky hills, there were more cases of typhoid fever than usual. I have obtained Dr. Hazelton's report for 1856. Since that time he has resided elsewhere. Stoddard has twelve hundred inhabitants. The fever cases were nineteen—two of them fatal. "The epidemic in which they occurred," says Dr. Hazelton, "was marked by an early tendency to sink. This was the most prominent symptom in most of the cases that came under my observation. The fatal cases were marked from the first by delirium; they had *subsultus tendinum*, and but little diarrhœa; and death took place within ten days." "I adopted the sustaining plan of treatment in all the cases—the mildest case requiring it in moderate degree, and the worst forms without stint. Quinine, opium, brandy and oil of turpentine, were the main articles used, and upon which I placed my main dependence."

No reports were received from Gilsum, but I have learned that fever was very prevalent there in 1856.

In Keene, south of Gilsum, in 1856–7, there was nothing marked in the extent or severity of typhoid fever. Keene has thirty-five hundred inhabitants, of whom about two thousand reside in the village, in the middle of a broad plain between two parallel ranges of hills. The plain is about two miles wide, and half as long. The soil is sandy, but generally saturated with water, on account of a continuous stratum of clay which underlies the sand, and forms an almost impervious basin. Half the village is upon this soil, and over this portion the fogs lie late in the morning during the latter part of summer and early autumn. From the middle of the village the surface begins to incline upwards—so that the soil of half of it is dry by means of the slope and the far greater depth of sand, and the air is far more free from fogs. The upper extremity of the village is about forty feet above the level plain on which the lower end rests. The remaining population of Keene is on the extensive meadows outside the village, and partly on the neighboring hills.

The seventy-nine cases of typhoid fever reported by the five physicians, comprise probably two-thirds of all that occurred in Keene in 1856–7. There are four or five irregular practitioners, who probably have had the charge of one-third of the cases that occurred in this town. Of the seventy-nine cases reported, fifty-

one were in 1856, and twenty-eight in 1857. Thus it appears, that, moderate as the epidemic was, the number of cases was nearly twice as great in 1856 (the year of the Marlow epidemic) as in 1857. Five were fatal, but the greater portion were mild, and presented no striking features in common, nothing beyond the regular and pathognomonic symptoms of typhoid fever. There were few cases where more than one person in the same family was ill with fever.

One of the physicians of Keene says, "I have relied in the treatment mostly on opiates and antimonials as medicines; occasionally have taken blood; blistered for local symptoms; direct frequent bathing of the skin; after the bowels have been evacuated by a cathartic, have not repeated the cathartic oftener than every three, four or even five days." Another gives as his treatment, "Emetic of ipecac at outset; a laxative (of calomel and rhubarb) every other day in case of constipation; hydrargyrum c. cretà in diarrhœa; morphia or Dover's powder for restlessness; daily sponging when skin hot and dry; cold drinks freely; quinine and wine during convalescence." I shall have occasion, before closing this report, to state my own method and express some opinions on the subject of treatment.

In Swanzey, six miles south of Keene, in the Ashuelot valley, there were eighty cases of fever in the two years. This town has a population of twenty-two hundred.

"In 1856," says Dr. Comings, "the disease prevailed on the elevated lands; in 1857, on the level plains. The plains are sandy and light; the high lands are of the good strong soil which is common to New Hampshire. In 1856, there was a general tendency to abdominal symptoms; diarrhœa, but no delirium; In 1857, there was a cerebral tendency, and pulmonary symptoms were more prominent. There were few cases where secondary symptoms occurred; except in those which were fatal. There were fourteen deaths — in all of which there were serious complications, three of pulmonary, nine of abdominal, and two of cerebral affections." "I have, in almost all cases of pure fever, found tonics, viz. quinine, to be the best and almost the only treatment, in good, generous doses. It has operated well in nearly all cases where there was no complication. Where severe inflammatory complications

of any kind were present, the treatment had to be varied;—more especially when there was a strong tendency to epistaxis, it was not borne so well;—in some cases of hæmorrhage from the bowels, it was contra-indicated. In most of the cases in 1857, where there was a tendency to hæmorrhage, it was from the bowels. In 1856, when the fever prevailed on elevated lands, there was a much greater tendency to epistaxis."

Troy lies on more elevated land, southeast of Swanzey. Dr. Caverly reports thirty-three cases in the last two years: twelve in the first year and twenty-two in the second. Five cases were complicated with pneumonia, generally slight; and three cases were fatal. Dr. C. writes, "My patients in 1857, compared with those in 1856, were much more prostrated by the disease, and the bowel affection was much more severe. In 1856, the head-symptoms predominated and were with difficulty controlled, but the fever was not so protracted, and the patients got out much earlier." "As to my general treatment, when called early, I usually gave an emetic; and when this did not move the bowels, I gave castor oil or sulphate of magnesia; and administered the effervescing draught till the nervous symptoms began to appear, when I substituted spirits of nitrous ether. In all cases, I watched the patient, and was careful to give no medicine unless indicated by some existing symptom. Later in the disease, when the bowel-affection was prominent, I used oil of turpentine, nitric acid or solution of chlorinated soda, selecting the one I considered the best adapted to each case; and I also used opiates and astringents. The various local affections were combatted with the usual remedies, which it is not needful to particularize. The most of my typhoid fever patients in 1857 were troubled, after convalescence was established, with torpid bowels, which seemed to retard their improvement."

Marlborough, lying between Troy and Keene, had, as I learned in conversation with the physician, no unusual amount of typhoid fever; but no written report has been received from that place.

Dr. Whittemore, of Chester, writes that twenty-six cases of fever occurred in his practice in 1856–7—ten in the first year, and sixteen in the second. None were fatal. They presented the usual variety of symptoms. One case was complicated with pneumonia; one with abscess in the neck. Fifteen of the cases were

in five families. "Our town," says Dr. Whittemore, "enjoys an elevated position, the highest inhabited spot above the level of the sea, except one, in Rockingham county. Consequently we have a clear, strong and dry breeze from the surrounding hills, most of the season." "In regard to treatment, I would say that I have no fixed mode of practice, but endeavor to treat the symptoms as they arise. If called in the first stage, I usually remove any obstructions that there may be in the alimentary canal. I often do this by an ipecac emetic or a cathartic dose of castor oil. If diarrhœa exist, I use the opiate enema. I prescribe nitrate of potassa and tartar emetic in small doses, if there is great heat of the surface and increased arterial action; I allay nervous irritation with tincture of castor, opiates, or extract of henbane. In case of less febrile action, I use bicarbonate of soda ℈ss, ipecac gr. iv, water ℥viij, in drachm doses every three hours. I shear or shave the head, and apply cold or iced water to it, by means of a bladder or irrigation, and leach it if necessary. I apply sinapisms to the feet, and stupes or sinapisms to the abdomen. Sponge the surface once or twice a day with cold or tepid baths; allow cold water in small quantities for drink, and the effervescing draught—gruel, toast water and barley water. I give a plenty of fresh air—a room with a fireplace, instead of a stove. In hæmorrhage from the bowels, I prescribe terebinthinate enemas. In the last stage, or as soon as the febrile symptoms admit, I use wine, brandy, gin and milk, cider, beef and chicken tea, and finally beefsteak.

"In short, my treatment is of the sustaining type—for as soon as the febrile symptoms are found to be giving way, I endeavor to withdraw such surroundings as would in any degree tend to wear my patient's strength, and use instead all that can be admitted to his support."

Dr. Carswell, of East Weare, reports thirty-nine cases occurring in his practice in 1856–7—seventeen in the first year, twenty-two in the second. Twenty-five of them were in eight families. Two cases had hæmorrhage from the bowels, two had great irritability of the stomach, four were fatal—three of them in forty-three, forty-eight and sixty-one days respectively, the fourth having passed out of his hands. Twenty-one were in Weare, nine in Dunbarton, six in Bow, and four in Henniker; and are not all the cases that occurred in these towns.

As to treatment, Dr. Carswell says, "If I am called in season and there is no diarrhœa present, I give a mild cathartic of senna, jalap and cloves. I rarely repeat the physic during the fever. After a movement of the bowels has been procured, and during the stage of excitement, I give a fever powder composed of ipecac, camphor, supercarbonate of soda and opium, in small doses every three or four hours. I soon substitute stimulants for this powder in the daytime, such as carb. ammoniæ, brandy or capsicum, or in extreme cases, both; giving a larger one of the above fever powders at bedtime, and repeating it after midnight if the patient is very restless." "In the early stage, I have the surface frequently bathed with salæratus-water, tepid; and in the later stage, with whiskey or alcohol and water, at such a temperature as feels the most grateful to the patient. I use fomentations upon the abdomen. If there is *subsultus tendinum*, I give the fluid extract of valerian. I have the patient's clothes and bed-clothes changed daily and sometimes oftener, and the room well ventilated. I use as little medicine as possible in fulfilling the indications."

The cases whose reports have been received, give, when tabulated, the following results:

Whole number of cases, 370.

	Marlow.	Stoddard.	Keene.	Swanzey.	Troy.	Chester.	E. Weare.
1856,	90	19	51	40	12	10	17
1857,			28	40	21	16	22

Sex:	Male,	154
	Female,	132
	Not given,	84
		—370

Age:	Under 10 years,	41
	10 to 15,	19
	15 to 20,	46
	20 to 30,	77
	30 to 40,	50
	40 to 50,	20
	50 to 60,	18
	60 to 70,	13
	70 to 80,	2
	Not given,	84
		—370

Date:	January,	13
	February,	2
	March,	7
	April,	2
	May,	12
	June,	7
	July,	32
	August,	88
	September,	87
	October,	84
	November,	22
	December,	14
		—370

Result:	**Recovered,.....334**		**Fatal cases terminated in**	
	Died, ... 36		**1st week,..... 2**	
		—370	**2d " 10**	
			3d " 4	
			4th " 2	
			6th " 1	
			7th " 2	
			9th " 1	
			Time not stated,.....14	
				—36

The above table is not offered with the belief that it has much value. Were we in possession of full reports for two years, from every town in the state, with a description of the topographical character of every place, an accurate meteorological table for the same time, and all the particulars having any bearing on the health of a community, it would be extremely interesting to reduce the facts to tabular form; and the table would be a valuable aid in the study of typhoid fever, if not of the history of epidemics. The extracts which have been made from the several letters received by the committee, contain what is chiefly interesting in this report. The tables are correct, as far as they go, and present some of the well-known facts relating to typhoid fever. Some other points, which were referred to in the circular asking information on this subject, — such as the duration of the disease and the prominent symptoms, — could not be introduced into the table, on account of the different views that were evidently taken of the meaning of the committee by the several contributors, and consequently the various modes of reckoning the duration of fever, and the statement of its several leading symptoms. But it seemed best to make a table, were it of no more worth than to indicate what might be done with the proper materials.

Your committee will beg leave, in this connection, to say a little in regard to the treatment of typhoid fever. It is gratifying to find that most of the gentlemen who contributed to this report, agree in the view of the chief indications to be fulfilled in the management of the disease: 1st, that the course to be pursued is to be determined by the character of each epidemic; 2d, that stimulation is often required from the outset — nearly always during the convalescence. And the views that have been expressed are,

no doubt, a fair representation of those held by the most intelligent members of our profession. We would further suggest, that even less medication than is employed by many good practitioners, is required in typhoid fever. Continued fever is a disease of the general system. The local affections, whether inflammation of Peyer's patches or pneumonia, do indeed produce serious symptoms, requiring sometimes special medication to relieve them, and diminish their ill effects; but there can be little doubt that the way to prevent the occurrence of these symptoms is to relieve the severity of the fever, the general constitutional disease—and even when the local affection is already established, the general treatment has far more effect upon it than the topical treatment does. Calomel, antimonials, "fever powders," blisters, etc., appear to us quite unnecessary, and, worse than that, injurious. Doubtless, a gentle laxative is often useful in the course of fever; chalk mixture may be required to hold the diarrhœa in check; excessive restlessness, delirium, or severe pain, may demand opium, if it will not yield to the sedative effect of external cold or other general hygienic influences.

One generation has passed away since Nathan Smith taught and published his sensible views on the treatment of typhoid fever—views deduced from his yearly experience. How many physicians are there who put his hygienic course fully into practice? His remarks are too good to condense, and too fully expressed to quote here—but it is to be hoped they are already familiar to all the fellows of this society. The closing page of his paper, on "typhus," is especially to be commended to notice, as containing full directions on the points which are apt to be considered too trivial to be noticed in a scientific work.

When I am called to a case of fever, I too often find my patient lying in a little bed-room, about one-third larger than the bedstead on which he lies, with no outlet to the room but one window, rarely opened, and the door which gives communication with the family kitchen or sitting-room; the atmosphere warm and foul, charged with the exhalations from the patient's skin, so fully that you can not only smell but taste the nauseous air,—sickening and prostrating to one who is in ordinary health,—how much worse to him who is struggling for life with a severe disease! How often

have I seen a decided improvement in a patient in an advanced stage of fever, on being removed from such quarters into a well-ventilated room.

My plan is, to have the patient placed in a room with an open fireplace, if there be one in the house; to have a little fire in it, if the weather be not too warm; to have windows and doors open —on both sides, if possible—night and day. Then to sponge him from head to foot once or twice a day, or as much oftener as is required to keep him comfortable, with cold water when he is hot, and tepid water if cool; to apply ice or water to his head, if restless or delirious; to give him cold drinks as often as he likes, in small quantities. His nourishment is to consist, at first, of liquid farinaceous articles, unless the disease is marked with sinking; if so, he has liquid animal food from the outset, beef tea, chicken tea or beef juice, and at the same time he begins to use wine or brandy. I always carefully watch the action of the heart —as Stokes has taught us to do—for indications for stimulating. When the first sound is indistinct or like the second, or the impulse absent, then I give wine or brandy, according to its effect in restoring the normal action of the heart. There are other circumstances, such as a purplish hue of the skin, coldness of the extremities, and everything that indicates a sluggish capillary circulation, that I look to for indications for stimulating; but there may be nothing in the general appearance of the patient indicating debility,—still, if the impulse of the heart be not felt in the præcordia, I believe that it is time to stimulate. Quinine is certainly an excellent remedy in fever, whether used in conjunction with alcoholic stimulants during convalescence, or as a daily remedy from the outset. I have tried it with more or less success in some cases of fever, in the method recommended by Dundas of Liverpool; but the costliness of the treatment has prevented my employing it generally. When given in doses of one hundred grains daily—as I have seen—the specific symptoms, ringing in the ears and deafness, have begun in about three days; after which ten or fifteen grains daily were enough to keep up the good effects. Immediately on the deafness beginning, the pulse falls, the skin cools, restlessness and delirium give way to calm sleep, and the diarrhœa abates.

These views are not advanced because they are supposed to be new. Besides all that Nathan Smith has said on the subject, there are other writers who understand the value of hygienic means, and many men who use them as they deserve. There are probably few gentlemen in our profession who do not understand *theoretically* the importance of ventilation, while there are a great many who are *practically* ignorant of it. In the treatment of fever, I doubt not that gentlemen generally consider it desirable to have the room ventilated—but they very often fail to see that it is done; they will even put up with a very poor apology for it, if it happens to be a little inconvenient; or they will simply say, "Keep the room well aired," and there leave the matter. Now I insist that ventilation is not merely "a very good thing," it is not a thing to be mentioned along with other things for the patient; it is *the* thing. Physicians often give all their directions for the taking of medicine, for diet, etc., and add, as they are going away, some direction for ventilation. We must make it the *primary* concern, not the secondary;—we must let the nurse see that it is the first thing to be considered;—that clean clothes every day, a well-washed skin, and a steady stream of fresh air through the room, are absolutely indispensable. And there is no doubt, that most medicines, except brandy and soup, can be dispensed with. Whatever medicines need to be administered, are only those for the relief of certain symptoms—not for their influence on the result. The influence too of these hygienic means upon the extension of the fever must be very considerable. In country towns, especially among farmers, there are frequently three, four, five, or more cases, in succession, in the same house. In the Massachusetts General Hospital, where sometimes every bed in a ward of seven beds, contains a fever patient, the disease rarely extends to the attendants. To my mind, the difference is to be found in the more thorough ventilation of the wards of the hospital, and the confined atmosphere of the private houses, in the latter of which effluvia that are contantly arising from the body of the patient, are pent up and concentrated, to poison those that are forced to breathe the same air. That I may not be thought to overrate the value of these hygienic means in the treatment of fever, let me fortify my position by the following most interesting extracts, which I have made from the

letters of some New Jersey gentlemen to the New York Academy of Medicine. They were published in a congressional document several years ago, and may be familiar to many of the society; but they will bear repetition here.

"In the month of August, 1837, a number of ships, with emigrant passengers, arrived at Perth Amboy, from Liverpool and other ports, on board of some of which ship fever prevailed. There was no hospital or other accommodations in the town, in which the sick could be placed, and no person could admit them into private dwellings, fearing the infection of the fever. They could not be left on board the ships. An arrangement was made to land the sick passengers, and place them in an open wood, adjacent to a large spring of water, about a mile and a half from town. Rough shanties, floored with boards, and covered with sails, were erected, and thirty-six patients were taken from on board ship with boats, landed as near the spring as they could get, and carried in wagons to the encampment (as it was called), under the influence of a hot sun, in the month of August. Of the thirty-six first named, twelve were insensible, in the last stage of fever, and not expected to live twenty-four hours.

"The day after landing, there was a heavy rain, and the shanties afforded no protection with their 'sail' roofs. The sick were found the next morning wet, and their bedding, such as it was, drenched with the rain. It was replaced with such articles as could be collected from the charity of the inhabitants. The number of the encampment was increased by new subjects, to the amount of eighty-two in all.

"On board the ship, which was cleansed after landing the passengers, four of the crew were taken with ship fever, and two of them died. Some of the nurses at the encampment were taken sick, but recovered. Of the whole number of eighty-two passengers removed from the ship, *not one died.* Pure air, good water, and perhaps the rain, (though only the first thirty-six were affected by it,) seem to have effected the cure." To this is added the testimony of Dr. C. McKnight Smith, who had charge of the emigrants. After confirming the statement just quoted, he says, "The medical treatment was exceedingly simple, consisting, in the main, of an occasional laxative or enema, vegetable acids, and bit-

ters; wine was liberally administered, together with the free use of cold water, buttermilk and animal broths! The four sailors who sickened after the arrival of the vessel, were removed to the room of an ordinary dwelling-house; the medical treatment in their case was precisely similar, yet two of them died! My opinion is, that had the eighty-two treated at the encampment been placed at a common hospital, many of them would also have fallen victims. I do not attribute their recovery so much to the remedies administered, as to the circumstances in which they were placed; in other words, a good washing to begin with, and an abundance of fresh air!"

Eighty-two cases of continued fever (not the form of fever that we are concerned with in this report, but allied to it, and more malignant,) of a grave type, and not one death! No equal number of cases of a similar character can be produced, with so favorable a result, under any medical treatment that ever was devised. Further comment on these cases is quite unnecessary. To such views as have been expressed in the report, we believe that the medical profession has been sometime tending; and many,—as is the case with some of the gentlemen who aided me with the contributions of their experience,—are constantly setting out with an apparent determination to dispense almost entirely with drugs in fever cases; but emergencies arise in which they dare not rely on what seem to be untried measures, however rational, but cling to the time-honored agents of the materia medica.

REPORT ON SURGERY.

BY A. SMALLEY, M. D., LYME.

MR. PRESIDENT, AND GENTLEMEN
OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

Since my appointment as Committee on Surgery by this society last year, I have found myself very much in the condition of the Hebrew bondmen in Egypt, compelled to produce my tale of brick and furnish my own straw, or like the children in the market-place, having piped but *you* have not danced; having addressed nearly one hundred circulars and received from but three members any notice. This I feel should be a sufficient apology for the feebleness of my report.

I propose to offer a few cases which have come under my own care and observation, of reduction of dislocation without forcible extension, but by manipulation.

When chloroform and ether, as anesthetic agents, were discovered, they fell as the meteor's glare upon the scientific world, and pæans resounded from the surgeon and the sufferer. This subject may never elicit so much laudation, still it is doomed to give a steady and increasing light, till its effulgence shall gladden the hearts of all who may be so unfortunate as to fall into the surgeon's hands with dislocated joints. That this method will take precedence of forcible extension, there can be but little doubt. It is far safer, so far as the integrity of the joint and its after usefulness are concerned, than the reduction by forcible extension. If the proposed plan of reducing all dislocations by manipulation should prove on farther trial to be as successful and as free from danger as it thus far has been, one most valuable feature of it, as a surgical resource, will be its availability. Wherever a surgeon with his bottle of chloroform can go, there the dislocated hip or shoulder can be reduced without instruments, without appliances, without assistants.

Whilst Fischer of Cologne is claiming priority, having published his success in November, 1849, and Wallmore Kleuge, Rust and Columbat have proposed methods of replacement in which by diminishing the muscular contraction a less outlay of power is required than those in general use, we find the Surgical Society of Ireland awarding its meed of praise, if not to the above-named gentlemen, to Dr. W. W. Reed, of Rochester, N. Y., who read a paper on the subject, which was published in the Transactions of the Medical Society of the State of New York, February 3, 1852. Wiseman, as early as 1676, Boulton in 1713, and Turner in 1742, advise reduction by manipulation, and as early as 1776 two cases are said to have been reduced in this way in Scotland by Anderson. Dr. P. S. Physic, in 1811, accidentally reduced a dislocation of the hip joint by manipulation; but to a New Hampshire man and one of the early ornaments and pillars of this society, belongs the credit of reducing dislocations of the larger joints without the pulley or any other extending force. To Nathan Smith, of Hanover, belongs whatever laurels should be worn for this advancing stride in surgical science. In our own *alma mater* was first taught scientifically and publicly the principles of reducing dislocations by manipulation.

On the 11th November, 1857, was called in haste to see a boy seven years old, who while at play with a common cart body which had been left reclining against a building, it fell and caught him under it. It struck him in its fall on the left side, and crushed him to the ground with the left leg adducted. In two hours after the accident I found him on the bed with the limb still drawn away from the other, the leg slightly flexed; the upper part of the affected thigh was nearer the other than usual, and the trochanter major less prominent. The gleuteal muscles were drawn downward and put upon the stretch, and considerably flattened. The triceps was also in a state of tension, forming a hard mass, which reached from the os pubis to below the middle of the thigh. A hard tumor could be felt upon the obturator muscle and ligament at the inner and upper part of the thigh, near the perineum. Being unable to make any examination satisfactorily, on account of the pain it gave him, I administered chloroform till he was completely unconscious, when it was apparent the injury was dislocation of the head of the femur upon the obturator foramen. And even in this state of unconsciousness it was difficult to bring the injured limb near enough to the other to ascertain their comparative length. The injured limb was found an inch and a half nearly longest. Having flexed the leg upon the thigh and the thigh upon the pelvis, with the left hand grasping the knee and the thigh, with the right I rotated the limb outward together with oscillatory motion accompanied with abduction, when an audible snap occurred, and the head of the bone was found to be in its natural position. No force was used more than

to sustain the weight of the limb. The time occupied in the reduction was but a few seconds, and in two weeks he was enabled to walk with a slight halt, which lasted him three weeks longer.

In 1856, was called to a little girl two years old, who had received a fall some six feet an hour before. I found her with countenance pale with nausea and cold extremities, lying in the mother's lap and making much ado at any attempt to change her position. Both legs were somewhat flexed; the left one shortened an inch and a half, the knee inclined inwards with the toes resting on the tarsus of the opposite side. The trochanter major was approximated to the anterior superior spinous proscess of the illium and was less prominent than that of the sound limb. The natural roundness of the hip had disappeared. Any attempt to rotate the foot outward was attended with the most acute pain. From the presence of these symptoms was led to pronounce the case one of dislocation of the head of the femur upon the dorsum of the illium. Being the first case of dislocation of the hip I had ever seen, resolved to try the process of manipulation. After placing the little patient upon the bed on her back, the leg was bent upon the thigh, and the thigh flexed upon the pelvis until the knee was brought nearly to the abdomen, when the thigh was adducted, rotated outward, then adducted, when reduction was immediately accomplished with a snap, distinctly heard by all in the room. The time occupied after placing the patient on the bed was less than a minute. In fifteen days she was able to walk, but with some lameness for several weeks. No anesthetic was employed in this case.

It seems that injury must result from forcing so powerful a lever as the leg in any direction in which resistance is offered, and that the head of the bone in that case would be made to traverse new ground and would be more likely to elude the rent already made in the capsular ligament.

I have been led to investigate the subject of fracture and dislocation of the ankle joint from a serious injury of that locality in my own family.

A son of eleven years, on the 20th of April, 1857, was thrown from a buggy while at a rapid speed, and turning a corner at right angles came to the ground on his feet, fracturing both maleoli of the tibia and fibula; fracturing off and forcing through the integuments nearly three-fourths of the astragalus, separating all the ligamentous attachments except a small shred of sufficient size to sustain the weight of the fractured bone. Dr. C. B. Hamilton was soon called, and in six hours after the accident Dr. Crosby was called and proceeded to adjust the fragments of the tibia and fibula, trusting to nature to restore the loss of the astragalus. This was done at ten o'clock in the evening, but as reaction came on the limb became extremely painful, and the nervous system so much involved that his life was in danger, so that at sunrise the next morning it was decided that the only safety was in amputating the limb. The operation was performed by Dr. Crosby (assisted by Drs. Hamilton and A. B. Crosby). The amputation was at near the middle of the leg, using the posterior muscles and integuments for a flap to cover the stump. Chloroform was used during the operation, and in some of the subsequent dressings.

The recovery was good; and in September following he was sup-

plied with one of Palmer & Co's artificial legs, with which he has been able to walk, skate, and kick foot ball, with such ease that a stranger would hardly suspect an artificial leg. This accident is of so rare occurrence as to give it interest aside from its near relation to myself. But few cases are recorded of so severe an injury to the ankle joint. I have been able to find but one case recorded of the fracture of both maleoli, and in that the astragalus was dislocated but not fractured. I have thought proper to bring this subject before the society because so little attention has been directed to it by systematic writers on surgery. Bell says the astragalus may be displaced backward; Mr. Liston had one case of dislocation backward; so Mr. Lizars. In four of seven recorded cases of dislocation of the astragalus it was thrown backward. In only one of the seven cases was either the tibia or fibula fractured, and in that case both these bones were broken at the level of the ankle joint. This case is also the only one of the seven in which reduction was effected, and no doubt the fracture of the bones of the leg facilitated the reduction. In one case only the astragalus was fractured, and which eventually ulcerated the integuments and came away, or was removed with a probe-pointed bistoury. In forty-six cases of dislocation of the astragalus, recorded by Mr. Turner, of Manchester, England, only six were completely reduced; of these six three were accompanied by fracture — one of the tibia, one of the fibula, and one of the astragalus. In two it was partially reduced. In ten it was suffered to remain in its new situation. In six it was partially excised. In eighteen it was wholly excised; and in four the limb itself was removed by amputation.

In view of the results of an accident of this kind, some would resort to the removal of the foot by Mr. Symes's operation, leaving the integuments of the heel for a pad after nipping off the maleoli, which would be a better termination to the leg than an anchylosed and weighty foot. But looking at the question in another light, viz., its power of diminishing the risk of the loss of life, it seems that amputation of the leg and the modern appliances for locomotion would be preferable.

I am indebted to Dr. Dixi Crosby, of Hanover, and Dr. W. W. Brown, of Manchester, for their kindness in furnishing the following interesting cases. They are respectfully presented.

CASE OF LUPUS EXEDENS. PLASTIC OPERATION.

BY DIXI CROSBY, M. D.

Mrs. H., aged forty, some three years since came under the professional care of Dr. Phelps, of Windsor, Vt., from whom I derive the following particulars in this case prior to the operation. He says:

"It came under my notice in the spring of 1855. There was a morbid growth upon the lower lid about the size of a pea. It was flattened in shape and projected from the inner surface of the lid, presenting at this point an increased redness. The tumor was very hard, and showed somewhat externally, but the skin was not discolored and was perfectly moveable over it. I am unable to say whether any applications had been made to it or not prior to this time. I, however, suspected it to be a case of lupus. The disease progressed with such rapidity that in the early part of summer it involved all the textures of the lid, and presented a surface upon the margin. At this time chloride of zinc was applied with some effect to diminish the size of the tumor. In July following an erosion commenced, and its character as lupus was fully developed. Soon after this, the patient consulted Dr. Reynolds of Boston, by whom a small portion was removed, and the acid nitrate of mercury directed to be used. Upon her return home I found a hardened portion of the lid growing rapidly toward the inner angle of the eye, and removed it. It seemed for a little time as if the disease was checked, but it soon recommenced its ravages. It must have been in October that I removed the second out-growth."

In December following the last date, the case came into my hands. Its appearance fully confirmed the diagnosis of Prof. Phelps. Having no confidence in constitutional or local treatment, I at once seconded the suggestion previously made by Dr. Phelps, to remove the diseased mass and lower lid with the knife. The patient acceded to the proposition, and a day was fixed for the operation.

Everything being in readiness, the patient was brought fully under the influence of chloroform, and assisted by Prof. Phelps, I commenced the operation by an incision from the inner angle of the eye, externally to the puncture, obliquely downward and outward, an inch and a half in length. A second incision was now made from the outer canthus obliquely downward and inward till it met the extremity of the first. I then seized the triangular mass between the incisions with the forceps, and dissected it away, together with the whole lower lid, exposing the edge of the orbit and the lobules of adipose tissue beneath the globe of the eye. A curvelinear incision was now made, commencing at the outer canthus and extending nearly an inch and a half on the malar bone to the lower edge of the zygoma. From the extremity of this incision I made another downward and inward parallel with the second, to a point on the cheek about an inch below its lower extremity. All these incisions were made to divide the tissues through to the deep fascia. This last flap was now dissected up from the top downward to its pedicle and held separated from its attachments until hæmorrhage had ceased, when the parts were all sponged clean and wiped dry. The inner corner of the flap was now brought to the inner canthus, where it was retained in place by an interrupted suture. A second suture was passed through the outer corner of the flap and the external extremity of the upper lid. Two sutures were in-

troduced to unite the flap with the integument next the nose, and two more to coaptate the edges of the skin bordering the denuded surface. A few adhesive strips and a little collodion completed the dressings. No untoward local or constitutional symptoms occurred, and the wounds united throughout their whole extent by immediate adhesion, with the exception of a small portion from which the flap had been removed, and this subsequently closed by granulation. I am indebted to Prof. Phelps for an ambrotype of the patient (who kindly consented to sit for it), an examination of which will show how good a recovery was obtained in this case. In relation to the picture Dr. Phelps remarks:

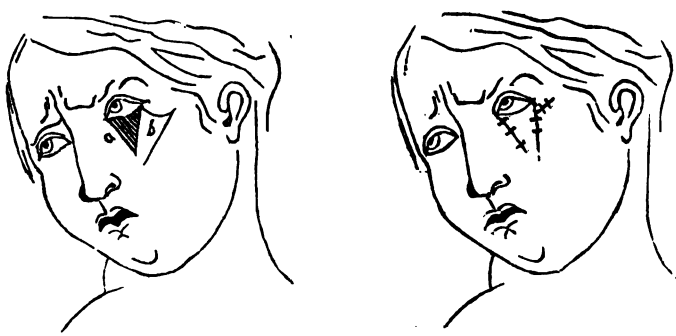
"The ambrotype shows how good a lid has been made. The cicatrices are as well shown as they can be. They are very plainly to be seen upon inspection of the face itself."

The patient is now perfectly healthy in every particular.

It is hoped the accompanying diagrams, rude as they are, may aid in understanding the description, which would be somewhat blind without them.

Dartmouth College, May 31st, 1858.

Appearance after the dressing.



a Surface from which the diseased mass was removed.
b Flap for the new lid.

A CASE OF TREPHINING.

BY DIXI CROSBY, M. D.

A case has occurred in my practice during the past year, in which I resorted to the operation of trephining, with a favorable result. The case is interesting since the patient suffered so long and gained so much relief from the operation.

Mr. C., a young man, twenty-one years of age, presented himself in August, 1857. He was robust and perfectly healthy in his appearance. The family was generally healthy. The mother died from softening of the brain. He gave his history as follows: Fifteen years ago, late in the autumn, he

was amusing himself by stirring up his father's pigs with a pole. His method consisted in climbing up the side of the pen in which the pigs were confined, using the pole vigorously, and immediately dropping down out of sight. On one occasion he dropt down, not on his feet, but on his head. The upper part of his forehead, near the hair, came in contact with a sharp stone frozen into the ground. A considerable wound was inflicted, and it was thought that the bone was somewhat broken. The boy however retained his consciousness, and his mother dressed the wound, no physician being called. From time to time small fragments of bone escaped from the wound, and it was not until a year had elapsed that it entirely healed. Ever after the accident he complained of headache in the region of the injury. This was much worse at times, being greatly aggravated by any attempt to study. On this account he got a distaste for his books, and was considered a backward boy. This pain had continued for fifteen years when he presented himself to me. The matter annoyed him so much that he was prepared to submit to any operation that would offer a prospect of relief. The cicatrix of the original wound was very evident. On passing the finger over it a distinct depression could be detected. There was a dull, heavy expression about the eyes. I advised trephining, and the young man readily assented. Chloroform was administered, in the presence of the medical class, and a V shaped incision made, the apex being upward. The trephine was now applied, and a button of bone removed, involving the depressed surface. The bone was found to be unusually thin. It was also seen that the outer table of the skull was alone depressed, the inner table remaining intact. The depressed portion was very vascular. Professor Phelps examined the piece of bone removed, and averred that a portion of nerve substance had been compressed between the outer and inner tables of the skull.

On coming out from under the influence of the chloroform, the patient complained of a sensation of numbness about the forehead, but no pain. Besides this, he was now able to roll his eyes upward easily, which he had not been able to do for fifteen years without pain. The wound was dressed with a single suture and isinglass plaster. Immediate union occurred, and no untoward circumstances arose during recovery. In a few days he was out of doors. For the next two or three months he was liable to headache quite often. After this the tendency wore away, and he is now active, and suffers no more from headache than persons ordinarily do.

CASE OF FRACTURE OF THE SKULL.

Difficult diagnosis. Death sixty days after the accident. Autopsy.

BY W. W. BROWN, M. D.

April 20th, 1857, was called to visit Luther W., aged fourteen years. His health had previously been uniformly good. He was at the time of my visit, apparently laboring under some gastric derangement, with slight febrile symptoms. There was loss of appetite with some nausea and occasional vomiting. His mother casually remarked that some four weeks previously, he had a fall from a loft in the barn, which stunned him and rendered him insensible for a few moments, but that he had entirely recovered from its ef-

fects immediately, and had attended school and pursued his studies as usual from the time of the accident until within a day or two of the above date. Prescribed for him, rest, light diet, with Sub. Mur. Hyd. at night, to be followed with Pulv. Rhei in the morning. Having heard nothing from the patient we supposed him to have fully recovered, but May 19th, about one month from the first visit, was called to see him again. Had seemed much better after taking the medicine, though his nights had been restless. There had been a *peculiar uneasiness* about him which attracted the attention of his parents. On some days he had seemed quite well; on others had vomited on taking food or drink. Had not complained of his head at all.

The peculiar restlessness above referred to, was his most prominent symptom and difficult to explain. After getting comfortably placed upon the bed, he would suddenly spring up and throw himself upon the floor or sofa, and would soon as rapidly return to the bed. He was free from unnatural heat or thirst; pulse seventy, apparently natural; no inclination to take food; secretion of kidneys healthy. The case though having these peculiar features, seemed to be one of gastric and hepatic derangement, such as we every day see relieved by an alterative course of treatment. With this view of the case the following directions were given.

℞. Pulv. Ip. Comp. grs. jv.
Sub. Mur. Hyd. gr. j.

to be repeated every sixth hour with Fluid Ext. Hyoscyamus to allay nervous irritability and procure rest.

21. Found him nearly in the same condition. Pulse seventy, skin cool, no thirst, no headache, intellect perfect, had vomited often, and had been as restless as usual.

22. Symptoms but little changed. Had slept very little, restlessness unabated, no thirst or inclination for food; had vomited large quantities of greenish billious matter.

℞. Cathartic of Pulv. Rhei and Sup. Carb. Sodæ, to be followed by the powders and Ext. Lactucæ.

23. Symptoms without much variation. Restlessness and vomiting continue, pulse natural as to fullness and frequency, had bled some at the nose in the night, desired to have the room dark, would start at any sudden noise, heat of surface and secretion of kidneys normal.

℞. To continue the Sub. Mur. Hyd., omitting the Pulv. Ip. Comp. Ext. Lupulin added to the Ext. Hyosc. Epispastic to the epigastrium.

24. Symptoms not essentially altered. Had rested little; intolerance of light and sound rather increased.

℞. To continue the treatment.

25. Had rested some better, though he had changed a great number of times from the bed to the floor and sofa; had bled some at the nose.

℞. To take Sul. Magnesia ℥ ji. After cathartic operation to continue the treatment with Ext. Belladonna added to the anodyne.

26. No change.

27. Was called at one o'clock this morning to visit him. Had become *extremely restless;* no pain; intolerance of light greatly increased. Dr. J. Crosby was had in consultation this morning.

℞. To continue treatment.

28. No perceptible change.

29. Had continued restless, pulse about seventy, pupils dilated, voice a little changed, slight delirium of the muttering kind, some subsultus of the tendons.

30. Restlessness and delirium increased, pupils more fully dilated, right eye a little inverted. Dr. Crosby present.

℞. To continue the medicine, and apply Tinct. Cantharides to the scalp.

31. Inclined to stupor; eyes open, but no vision; right pupil of the size of a small garden pea, the left fully dilated; evacutions from the bladder and bowels involuntary; pulse one hundred; when aroused seemed frightened.

℞. Hyd. Potassæ 4 grs. every four hours.

June 1. More stupid; both pupils fully dilated; deglutition difficult; respiration laborious; pulse one hundred and forty.

2. Died at eight o'clock this morning.

Autopsy, *nine hours after death.* On dissecting back the scalp preparatory to opening the cranium, an ecchymosis was discovered of an oblong form, three inches long by two broad, extending diagonally across the superior anterior part of the left temporal bone. On denuding the bone of its periostrum, a fracture of the external table was found, one inch and a half in length. On opening the cranium, not less than three ounces of serum was found under the dura mater. The blood vessels of the pia mater were greatly engorged with blood. There was no effusion within the ventricles. The right thalamus was flattened, and its substance softened.

Observations. The result of the autopsy was such as to demonstrate very clearly the nature of the case. The fall received so long before was not regarded as a serious accident as the patient paid no attention to it, but pursued his studies as usual; and it did not interfere at all with his general health for at least three weeks. The symptoms for two weeks after indisposition took place, were such as we see in very slight cases of fever caused by gastric or hepatic derangement, though there was a peculiar variety of restlessness which we seldom see in any case.

We learn from this case how exceedingly cautious we should be in forming a prognosis in any instance where the disease may be primarily upon the brain or its meninges. We also learn, that a slight injury of the brain, even so slight as to be entirely disregarded, may in the end be attended with the most disastrous results. And, furthermore, that the vomiting in brain disease is very difficult to distinguish from that caused by gastric irritations.

AN ESSAY ON DEBILITY.

READ TO THE SOCIETY BY ABNER HAM, M. D.

It is with little reflection assuredly that debility is considered as a disease.
Macculloch.

"Debility is not a disease," says Dr. Rush. Dr. Gallup heads a chapter of his Institutes devoted to the subject, "Disease is not debility; neither is debility disease." So by other pathologists is the doctrine that debility constitutes an independent pathological condition, or an element in the pathology of disease, discarded in explicit terms, or it is entirely unnoticed, perhaps upon the principle that the exposition of truth necessarily excludes error.

According to Dr. Copland, however, debility "has been admitted by every physician who has looked beyond the grosser and more palpable changes superinduced in the economy, as not only a most important pathological condition, but as oftener constituting what is, in the common language of medicine, disease itself."*

This author having virtually adopted, in relation to this subject, the proposition of Pinel, "A disease being given to determine its true character and the rank it must take in a nosological table," proceeds to treat it methodically. It is presented in its "simple form," and may affect any part, or the entire system. It is "associated" with and "complicates" different diseases. It is treated also with reference to its "causes," symptoms or "manifestations," "characteristic signs," &c.

Debility having been set apart as an independent affection, we look with interest for its "diagnostic" or "pathognomonic" symptoms. According to the author the diagnosis turns upon making the distinction between "depressed" and "oppressed" vital power, the former constituting "real" debility. But depressed vital power being a very common symptom, we may safely conclude,

* Med. Dict. "Debility."

that had debility its pathognomonic signs, the learned author would not have failed to present them. Upon his authority, then, we are under the necessity of rejecting the idea that debility constitutes an independent pathological condition, or "disease itself."

It follows, then, that the author's elaborate display of "causes," "manifestations," "characteristic signs," &c., under the head of debility, presents simply what belongs to general pathology, and not to a nosologically distinct affection. In this connection it may be observed, that the doctrine presents us, on the one hand, debility as a pathological cause, loss of power, a simple identical thing always in its nature, certainly; on the other, as regards remote causes, symptoms, and effects, variety and multiplicity beyond what belong to common inflammation even, while varieties of inflammation in kind in correspondence with diversities of remote causes, &c., are commonly recognized.

Various conditions of a simple nature, sometimes appertaining to the system as effects or symptoms of disease, again, having no known connection with it whatever, have been proposed as proximate cases, or offered in explanation of complex symptoms; as error *loci*, mechanical accumulations of blood, viscidity, fermentation, &c.; but no single hypothesis, perhaps, has been made proximate cause of varieties of disease nosologically distinct to so great extent as debility; though like others of a simple kind it could give rise only to correspondingly simple results. Thus, with Copland and Cullen, it is the proximate cause of fever. According to Thomson, Hastings, &c., it is the proximate cause of inflammation. It hardly need be mentioned how extensively the hypothesis has been received in relation to "malignant," "pestilential," or "congestive fevers," phthisis, scurvy, &c. The following are among the "consequences and terminations" of debility as essential pathological element, detailed by Dr. Copland; "impeded or interrupted secretions," "changes of the circulating fluids," "various states of inflammatory action," "general reaction of the vascular system associated with various grades of *vital power*, from the lowest or most asthenic, to its highest or most sthenic form, with their modifications," "effusions of fluids," "the formation of new or adventitious tissues or productions, as tubercles, tumors, melanosis, cancer, hydatids, worms, gangrene,"

&c. "Meagre debility has been transformed to a giant in imagination," says Gallup.

"Man naturally thinks and reasons justly," yet "formed as he is for reasoning always justly, reasons almost always wrong." (Cabanis.)

The doctrine of debility respects that distinction in the essential pathology of disease indicated by the terms "sthenic" and "asthenic," &c., or strength and weakness. According to Dr. Paine, these terms, when applied to pathological states, "are without any true meaning, and have led to very extensive practical errors." The contrary opinions of pathologists relative to the justness of the distinction thus set up in disease, may be explained in part, perhaps, by reference to the different methods pursued in pathological inquiries.

A certain group of symptoms, prostration of the functions to a greater or less extent, is made to denote the "asthenic type" in disease. Sensible failure of vital action, or of the "vital manifestations," is unquestionable evidence of debility with Dr. Copland. Here, the doctrine assumes that vital power and manifest action necessarily correspond in degree. This is contradicted by the fact that the functions are variable in health as regards their "dynamic" character. Syncope also furnishes an instance in proof that the "vital manifestations," or degree of sensible action in any given case, are not to be taken as the measure of the absolute powers of the system; since did failure of the functions and of the organic forces correspond in degree in syncope, spontaneous recovery from that state could never happen. Nor can these symptoms be regarded as essential in pathology, so manifestly occurring from the action of causes that have little or no power to produce those perversions of the organic forces and functions which really constitute disease. But the main point to be noticed here is the fact, that the pathological induction is made exclusively from existing symptoms. No regard is had to the nature of external remote causes, nor is it any objection to the conclusion, that perhaps "ten minutes before the most extreme prostration, the subject was in his full vigor of health," and "of the most robust, sanguine temperament."

Again, "debility is almost always accompanied with irritabil-

ity," says Dr. Good. "Increased action may exist with much or little power." (Hodge.) We have here another form of debility, a prominent example of which is "excessive reaction, and prostration from excessive loss of blood." Now if increased action may exist "with much or little power," we may have an amount of power not necessarily expressed in action. When there is an exalted state of the functions, where remote causes, supposed to be "debilitating," or really physically weakening, have been in operation, the position of the doctrine is, that "increased action may exist with little power." The doctrine itself, then, denies that necessary connection between action and power assumed in the case of prostration of the functions, and provides, that, in that case, there may be "much power" with little manifest action. If debility and excitement constitute a pathological state which is the legitimate product of evacuations, then that effect should uniformly follow the action of these causes in disease. These causes actually take effect upon the system, whenever evacuants are employed. The state of supposed debility should, therefore, as inevitably follow, as the disease smallpox, for instanee, follows the efficacious action of its virus upon the system; not an exposure to it simply. On the contrary, antiphlogistic evacuants are commonly employed to reduce excitement. That effect ordinarily attends their direct physiological action. Spontaneous evacuations, the "physical products of morbid action," pus, &c., are oftener followed by abatement than increase of morbid excitement.

The physical exhaustion consequent upon protracted acute disease, should, in the spirit of the doctrine, invariably produce the supposed pathological state. On the contrary, extreme physical weakness is not incompatible with perfect convalescence, and, therefore, not necessarily attended with morbid excitement. It follows, then, that when evacutions, as ordinarily instituted, and what is called "excessive loss of blood,"* are followed by continued or increased excitement, that state belongs essentially to the natural course of disease. The doctrine here overlooks the fixed relation that obtains between any given disease and the efficient operation of its remote cause or causes, and mistakes symptoms, belonging to the natural course of disease, for the essential result of causes which have modified these only.

* See Paine on Loss of Blood, Institutes of Medicine.

The conclusion then is, that excitement or exaltation of the functions does not belong to the supposed cause debility; since, when actual physical weakness is at its highest point, the excitement does not necessarily follow. There is, therefore, no such absurdity in pathology as increased action caused by loss of power. Now if we inquire why the excitement following evacuations is debility, the answer of the doctrine is, the causes are debilitating. If, again, we inquire why prostration is debility, that is to say, why the remote causes in this case are of a debilitating nature, the answer is, because the effect is debility.

However, a principal object had in view is to trace the general method the doctrine pursues in drawing its conclusions as to the nature of disease. First, then, it occupies the position that the essential pathology is to be deduced from present symptoms, irrespectively of other circumstances. Again, the pathology is derived in the same exclusive manner, from remote causes.

The doctrine also respects internal remote causes. Phthisis is "a disease of debility," for the reason that the subjects of it have, commonly, a delicate physical organization. In a given case of the disease, every "sthenic" condition may be present, with the exception of "hereditary debility;" early stage, evacuations of no kind may have been experienced; there may be exaltation of the functions, and the subject at the age when physical weakness is not natural, &c. The essential pathology is nevertheless debility, deduced from the isolated fact, natural delicacy. In the case of prostration of the functions, the doctrine would have us understand that natural constitution has little to do with the pathology of disease. Here, on the other hand, natural constitution determines the pathology exclusively.

The general fact, however, unquestionably is, that nosological distinctions have reference to the external remote causes of disease. Smallpox, measles, each species of fever, inflammation in its recognized forms, are essentially the same diseases in every variety of constitution. It is evident, that, in general, the kind of disease, or its essential pathology, depends upon, and corresponds with, the nature of the external predisposing cause or causes. That the external causes are paramount in pathology, appears from the further fact, that to them alone belongs the power of originating

disease. It is never a spontaneous product of any variety of natural temperament. The doctrine gives us to understand that phthisis is an exception to the foregoing general principle. The fact, on the contrary, is, upon abundant authority upon the point, that this disease is not limited to any particular variety of natural constitution; and, therefore, its essential pathology depends upon external causes, as does that of other diseases.

Now if the subject of the hereditary predisposition to phthisis will not contract a catarrh unless an external cause operate, his catarrh in its essential pathology is evidently the same as is that affection in the opposite constitution, produced by the same external cause; as the remote causes of fever, &c., produce the same diseases everywhere. If the external cause which ordinarily produces pneumonia, affect the phthisical habit, giving rise to disease of the lungs, its essential pathology is by all analogy the same. The opposite conclusion implies that essential or radical changes take place in the human constitution, since, *ceteris paribus*, no other explanation could be given for so radical a difference in the pathology of the two diseases, as to require plans of treatment directly opposite in their nature. This reasoning, of course, applies only to those cases of phthisis which can be referred definitely to external causes, which produce also pneumonia or catarrh. But if the disease be the product of external causes of the same nature as give rise to pneumonia, in dozen cases, and in these cases it be an inflammatory affection, it may not satisfactorily appear that the same identical disease is the product also of remote causes of a directly opposite kind. But whatever may be the nature of the external causes of phthisis, since it must owe to them its essential pathology, the doctrine is evidently at fault which inculcates a plan of treatment that has exclusive reference to the natural constitution of the subject; a modifying cause which demands respect in practice only so far as modification of its details is concerned; not to the extent of determining its general principles.

According to Dr. Copland, "a knowledge of the pathological relations of this singularly overlooked condition of vital power (debility) is necessary to the practitioner, inasmuch as it enables him to entertain enlarged and connected views of disease, by the

aid of which he may the better comprehend such states of disordered action as cannot be readily assigned to any particular type or specific form." But, in fact, we find the doctrine in the general positions it occupies, drawing its conclusions as to the nature of disease, now from existing symptoms exclusively, now from external remote causes, again from natural constitution alone; and in these various "relations," at one time reasoning in circular manner, constantly in conflict with principles and facts, and directly contradictory of itself in each new position it assumes. Indeed, it can hardly be said to consist of anything more than a series of isolated assertions, whose contradictory nature appears the moment any "connected" reasoning upon the phenomena of disease is attempted. Thus, prostration of the functions is affirmed to be debility. In the same case, in a few hours spontaneous excitement, exaltation of the functions, may have supervened. The two facts in connection plainly contradict the idea of debility so often associated with prostration alone; otherwise, it must be admitted that increase of vital power spontaneously happens during the course of "diseases of debility," while the physical powers of the system are being exhausted.

Again, in phthisis all other "sthenic" conditions, as the doctrine itself provides, may be present, but the doctrine, according to its habits of "connected" reasoning, isolates the single fact of natural physical delicacy, and upon that predicates the pathology. Now, if the fact that the disease occurs where the hereditary predisposition does not exist, or, at any rate, in naturally robust persons, be taken in connection with the foregoing, it at once appears that natural delicacy is not essential to the disease, and that its essential pathology must, therefore, like that of other diseases, be determined by external causes. The doctrine gives us, in reference to phthisis, by a mistake as to the relative value of the remote causes of disease, the vague indefinite appellation, "disease of debility;" which would convey an equally accurate idea of the essential pathology of smallpox or pneumonia occurring in the child. "Debility is a term by far too general for the foundation of any accurate reasoning, and wofully misapplied by the puerile theorists who professed to be followers of Dr. John Brown. (Young on Consumption.)

The doctrine of debility derives the pathology of phthisis from the relative physical weakness with which the predisposition to the disease is ordinarily associated. Again, emaciation, or the present relative physical weakness of the patient in the late stages of disease, is made to denote pathological debility. According to Professor Clarke, the "physiological law, which underlies all medical treatment," and which "is universally acknowledged at the present day," "is the law of alternate waste and repair — destruction and reproduction."* This law in disease becomes relative material "waste;" the great therapeutical indication to practical medicine under the auspices of the physical doctrines in physiology is therefore "repair;" since, according to the physical philosophy, vital power being but "a special property of organic structures," to maintain the system in its physical integrity, is, of course, to preserve all its powers and "properties."

"After an acute fever that has lasted a few days only, emaciation only is observed; nutrition, a function that is deranged as it is exercised, that is to say, slowly, is not yet sensibly affected."† Emaciation here has reference to the adipose tissue alone. No other tissue or part is "sensibly affected" in a fever of short duration. As the doctrine of debility makes no distinction in the early stage of disease between prostration of the voluntary muscular powers and organic action, so with regard to emaciation, no distinction is made between the animal and organic systems in their physical aspect. The further facts, however, appear to be, that material waste in disease, so far as the solids are concerned, is limited almost exclusively to the adipose tissue and the animal muscular system. If certain organic structures become attenuated in protracted organic affections, "the great vital organs" never suffer loss of substance, or other physical change, unless when the special seat of disease. And, indeed, no organic tissue suffers in its nutrition, until that period has arrived, when art can only hope to "alleviate the agonies of the inevitable hour."

The law of "waste and repair," then, as regards the organic system, remains essentially the same in health and disease. Ac-

* Introductory Lecture before the Medical Class, Harvard, 1855–6.
† Bichat. Gen. Anat., vol. i., p. 124.

cording to the physical doctrines, certainly, we have no such pathological condition as debility; since, upon the entire analogy of physics, there can be no change in the "property" or loss of power of any sort, without coincident loss in the material substratum. If nature is thus conservative, with regard to those parts most essential to the general economy of the system in their physical aspect, it is highly improbable the vital principle, regarding it as a distinct essence, is so constituted as to suffer loss of power under similar circumstances; an idea also totally irreconcilable with that of its recuperative power. In reference to vital power says Bichat, "we might say there was only a certain quantity in the animal economy, that this might be divided in different proportions, but it cannot be increased or diminished."*

Dr. Hassack objects to the doctrine that debility is the proximate cause of inflammation, that "it comes too late to be a cause; it is only in time to be a consequence." As to physical weakness it is evidently an effect, not only remote in time, but being limited essentially to the voluntary muscular powers, foreign to the actual seat of disease; which relates entirely to the system in its organic aspect, at least, so far as the physician's practice is concerned. According to the definition of proximate cause first given, it is said, by Gaubius, it is that "which when present constitutes the disease, when taken away, removes it, and when changed, changes it." The physical weakness, however, remains, after "disease itself" is gone. The line of distinction between the cause and effect in acute disease, is certainly plain enough at commencing convalescence.

Again, the system is subject to great changes in health, as regards the adipose tissue. The animal muscles, also, may vary greatly in their substance and powers. It has been observed that changes in the organic functions, as regards their mere "dynamic" expression are also common to health and disease; as the increased action of the heart and arteries from exercise, and the variable action of the skin and kidneys, &c. On the other hand, alteration in the nutrition of an organic tissue or part, in a general sense, denotes local disease, and by changes of the organic properties and actions in "kind," disease is at once constituted.

* Bichat. Gen. Anat., vol. ii., p. 38.

Hence it appears how remote from the essential pathology of any disease whatever is the only form of debility we ever have in disease, weakness of the voluntary powers.

This is the pathological "unit" however, of the physical doctrines in their practical inculcations. The physical disease, failure or nutrition, appears, however, to supervene upon something of which the philosophy seems to have but vague and indefinite notions, and to have, in fact, no nearer connection with the system than to occupy the space left by the departed fat, &c. A vague and indefinite reference is, also, had to assisting somehow the "vis medicatrix" by husbanding the strength and attempting to promote nutrition in disease; while the law of nature is waste of the fluids, fat and voluntary muscular powers, which art is as powerless to prevent, while disease of much importance is present, as it is to manufacture blood. Thus physical weakness is as natural to disease as strength to health. Hence art can justly be directly concerned with the removal of disease only; the physical strength and integrity of the system belonging to health alone, according to the "law" of nature. So far, then, from these being essential to the recuperative powers of the system, nature, in fact, depletes, as one of her plainest modes of cure, and in one way by general emaciation; she reduces the physical strength, then becomes recuperative. "Man commands nature only by obeying her laws."

Those general views in pathology which relate to change in the "types" of disease at different periods, and change of type in an individual case during its course, belong also to the doctrine of debility. That medical theories, doctrines, and opinions change, is a matter of no great obscurity; and the doctrine itself affords unequivocal evidence that the supposed changes in the nature of disease belong, in fact, to medical opinion.

By the method it pursues in drawing its pathological conclusions, the doctrine provides by implication, or in explicit terms, certain "sthenic" as well as "asthenic" conditions. Thus, if prostration, in general, gives to disease the "asthenic type," the implication is, that the opposite state of the functions constitutes strength. If natural physical weakness constitutes "diseases of debility," natural strength must determine the opposite pathology.

And if, in general, the stimulant plan of treatment becomes especially adapted to the late stages of disease, for the simple reason that it has become "chronic in time," however "acute" in its symptoms, exalted or "sthenic" the state of the functions, an early stage, *per se*, demands the opposite treatment, &c., &c.

If the exclusive method is good for the one "school" in medicine, it is, of course, equally good for the other. A case of prostration of the functions may combine the "sthenic" conditions, natural vigor, early stage, &c. Again, if prostration, *per se*, denotes such a pathological state as debility, exaltation in the late stages is equal proof of strength, however great the attendant emaciation or loss of animal strength, since these are but remote effects foreign to the actual seat of disease, mere negative states. Each "pathological condition," then, may be affirmed with equal reason, certainly under most circumstances of disease: although directly opposite in their nature, and absolutely incompatible.

But as the doctrine of debility encourages the "looking beyond the grosser phenomena," we may have respect to its more hidden principles. Of the "numerous grades and manifestations" of debility, says Dr. Copland, "from the slightest departure from health to the utmost consistent with existence, there can be no question; and therefore they cannot be otherwise than arbitrarily appreciated."

While the dogma of debility is thus entertained without a "question" of its truth, the pathology of disease by "arbitrary" assumption, is made to depend exclusively upon present symptoms, remote causes, or the ultimate effects of disease, as present exigencies may require. And if the inquiry arise as to how many or what particular functions must be involved in prostration in order to constitute a case of debility, we may "arbitrarily" deduce the pathology from prostration of the voluntary muscular powers alone, or with Miner and Tully, &c., make the type of disease in general depend wholly upon the qualities of the pulse. If it be "unquestionably" true that certain symptoms indicate pathological debility, it follows also that the exaltation of irritability "commonly associated" with exaltation of action, and the prostration of irritability or torpor attendant upon general prostration of sensible action, without "question," afford further instances of disease compounded of the opposite pathological conditions. So also the pros-

tration of voluntary power and of the functions concerned in nutrition, of the local action of the absorbents, failure of the appetite, "impeded and interrupted secretions," &c., attendant upon the "most sthenic forms of inflammation," may be made to indicate pathological debility by "arbitrary" assumption, experience and observation as to the effect of remedies in this form of disease to the contrary notwithstanding.

But since the doctrine of debility is chiefly important to the practitioner to enable him to "comprehend such states of disordered action as cannot be *readily* assigned to any particular type or specific form," for all anomalous symptoms, and no matter for what reason anomalous, whether from inattention, indisposition to thought and reflection, or the ignorance of the quack, "a specific form" is provided for all such cases, to which they may be "*readily* assigned," debility. The error in principle of thus setting up any hypothesis in pathology as "unquestionably" true, with a spirit that would preclude inquiry in relation to it as well as with regard to the pathological import of anomalous symptoms, is indeed sufficiently palpable.

In further illustration of the principles concerned in the "diagnosis" of the "types," says Dr. Bartlett, "according to the system of Dr. Gallup, the diseases of New England during the present century have been almost universally sthenic or inflammatory in their character; according to that of Drs. Miner and Tully, they have been asthenic or non-inflammatory. Precisely the same morbid phenomena have been interpreted by the two schools on directly opposite principles." (Philosophy of Medicine.) Brown made most diseases of the asthenic type; Rasori and Brousais of the sthenic. But if diseases may be arbitrarily "complicated" with either debility or the opposite, it would seem rather to follow, that, in fact, neither constitute pathological elements, than that either is unquestionably true. Hence the nature of the changes supposed to relate to the "types," while the nosological distinctions in disease, consequently their diagnostic or essential symptoms and pathology, depending upon external facts, remain the same. On the other hand, the doctrine of debility presents a species of pathology of the kind to which blood humors, fermentation, viscidity, &c., belong; creatures of "arbitrary" assumption, gratuitous hypothe-

sis, imagination, &c., which have no counterpart in external nature, in disease in fact, but change according to the different views of different individuals, or live and die with the popular views of the day.

But if the pathological doctrine be wrong, it follows that the *modus operandi* of tonics and stimulants it inculcates, is erroneous also. In prostration of the functions we are given to understand that these remedies are directly curative by imparting power, or exalting action. And, in general, where debility is supposed to be pathological, these agents are supposed to operate by their directly strengthening virtues. On the contrary, "nearly every kind of medicine induces a temporary state, which is really a state of disease, of which the intention and effect is to relieve disease more dangerous or less controllable."* Again, "remedial agents can never transmute the morbid into healthy condition."† That the direct action of stimulants in prostration of the functions is morbific, is evident from the consideration that the spontaneous excitement which ordinarily follows prostration of the functions in the early stages of disease, marks only the passage of disease from one stage to another; abatement of present excitement, on the contrary, generally indicating that nature has become recuperative.

"In respect to the absolute influences of all remedial agents, they are essentially morbific in their remedial action."† With regard to those agents whose action is attended with immediately sensible results, there can be no question as to the morbific character of their direct action. Catharsis, emesis, the local inflammation of the blister, &c., are unequivocally morbid effects everywhere. Whether the stage of excitement in disease, then, be promoted by the action of the internal or external stimulant, or whether the action of either correspond with, and increase, existing morbid excitement, or have a radical alterative effect, and the result be an abatement of present excitement, the direct tendency and action of these agents, in either case, is clearly morbific. "Our remedies cure by substituting new pathological conditions; nature does the rest."

* Conolly. Cyclopædia of Practical Medicine, vol. i., p. 673.
† Paine's Institutes of Medicine, §§ 856 a., 854 c.

Tonics and stimulants are supposed to possess strengthening virtues from the fact that they excite or exalt the functions. But the recognized morbific agents produce the same exaltation of the functions, and on that ground are equally entitled to be regarded as absolutely strengthening. Stimulants are also unquestionably morbific in health, and ultimate physical weakness clearly in the case of the alcoholic stimulants, common to these and morbific agents, as is exaltation of the functions. Stimulants, therefore, can cure only by subverting existing states of disease by their direct physiological action, not by imparting power to the system. "The whole philosophy of the operation of morbific and remedial agents rests upon physiological principles."*

The doctrine thus mistakes the morbid excitement of stimulants for strength. In prostration of the functions we are given to understand that these agents are directly curative. But in the early stages of phthisis, for instance with existing excitement, the ground of their direct action is abandoned, and a vague reference is had to a remote result, physical strength, which they are expected to bring about in some undefined manner. But if these agents are not adapted upon physiological grounds to the removal of present excitement, in this or any other disease, the only effect they can have is to aggravate the symptoms, and hasten the ultimate physical weakness which "they are deemed capable of curing."

* Paine's Institutes of Medicine, § 896.

ON CARBUNCLE.

BY WILLIAM LAIGHTON, M. D., PORTSMOUTH.

MR. PRESIDENT, AND GENTLEMEN
OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

Fearing that I shall be unable to attend your anniversary of this year, I will write an account of a case in my practice, the disease of which has high authority for opposite treatment.

The disease is Carbuncle. The questions in the treatment seem to be incision or no incision; stimulating diet or low diet. In the best medical publications of the day, we find both practices well sustained. The knife is said by some writers to be much surpassed in efficacy by the use of caustic. Turpentine and lead have also their advocates.

The case in my practice was a large carbuncle in the lumbar region of a gentleman about fifty-five years of age, corpulent form, free liver and quiet habits; and has gone far in my mind to favor incision. At the period of the disease known as the second stage, when the skin had become dusky, perforated by a few very small orifices, and surrounded by erysipelatous inflammation, over a circular surface of some twelve or fourteen inches. The patient suffering great depression, and some fever of a typhoid character. At this stage of the disease I availed myself of the opinion and assistance of a highly skillful surgeon, proposed by the patient's family, Doct. M. G. Delaney, Surgeon in the U. S. Navy, a gentleman to whom all justly accede the highest attainments. After due examination and careful inquiring into the condition of the patient, he freely laid open the sac by crucial incision, placed lint between the edges and directed a poultice to be placed over the wound. Over and beyond the erysipelatous surface Tinct. of Iodine was freely applied, and the whole supported by a bandage. The constitutional treatment in this case, adopted and continued from the first, has been decidedly of a tonic character, food highly nourishing and free use of porter. From this period the case has gradually improved, the inflammatory action diminished, and healthy granulations soon made their appearance throwing off the dead matter. Sloughing and suppuration were undoubtedly in-

creased in this case by incision, but the relief from pain which it gave, together with the rapid improvement which followed, satisfied me that it was good practice.

From what we find written upon this subject, it appears that the disease has much increased within a few years, and occurs among all classes, but more with men than women. From my own acquaintance with such cases, which however is very limited, I should conclude that its subjects were generally men past the middle age of life, and of rather free habits of living. And in treatment I would make incision unless the pain and spreading inflammation subsided within a reasonable time without, and give stimulants only when the constitutional condition required them.

REPORT OF DELEGATES TO DARTMOUTH COLLEGE.

To the New Hampshire Medical Society:

The undersigned, having been honored by appointment as Delegates to represent this Society at the Medical Examination of Dartmouth College, and having been duly notified, repaired there at the time appointed, and were received with the cordial attentions of the gentlemen connected with the school.

The examination commenced Monday evening, and was continued through the whole of Tuesday.

Eleven young gentlemen presented themselves, singly, for examination, and bore the careful and thorough scrutiny to which they were subjected, in such a manner, as could not fail to convince us, that the teachings to which they had listened had been most thorough and scientific. They were all admitted with the approbation of your delegates, to the honorable and responsible position of Doctor of Medicine.

The Medical School of Dartmouth College, which so many of us are proud of claiming as our Alma Mater, has for many years shed a bright lustre upon our profession and state. The Professors are men thoroughly imbued with a love of their calling, and spare no exertion to render their school pleasant and profitable to those who are preparing to enter upon the arduous duties of physicians.

The various cabinets are well supplied with choice specimens, models, drawings and preparations necessary to illustrate the different branches of Medical Science; these collections are from time to time receiving such additions as the constantly increasing knowledge of our art renders needful.

Your Delegates are of opinion that it is the duty of the Fellows of this Society, and of all physicians who may have the direction of pupils, to send them to this institution, to the end that its able and efficient board of directors and instructors may have their hands stayed and their school supported with that *material aid* requisite to maintain and continue its thorough and systematic medical instruction.

GEORGE H. HUBBARD, } *Delegates.*
WILLIAM P. STONE, }

ADDRESS OF HON. NOAH MARTIN, M. D.,

PRESIDENT ELECT, ON TAKING THE CHAIR.

MEDICAL BRETHREN:

FELLOWS OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

In assuming the position your kindness and partiality have assigned me, you will permit me to present to you my sincere acknowledgments for this unsolicited distinction and honor.

I appreciate it the more, inasmuch, as by reference to the catalogue of my predecessors in this station, I perceive that the selection, heretofore, has ever been guided by the merit and adaptability of the selected; and, as also, the designation to preside over the deliberations of a professional, a learned, and a scientific body, implies no unmeaning favor and esteem.

This Society has age and matureness. It was established more than threescore years ago, its officers inaugurated and the momentum given it, which has impelled it onward since on its mission of good.

It was established by men who had at heart the best interests, progress and honor of the profession, as well as the physical and mental healthfulness, the integrity and the happiness of the public, whose servants they were.

It was established upon the broad principles of salutary regulation of its members in their intercourse with each other, moral and professional; it recognizes, also, the varied relations which subsist between the sick and their medical advisers, in the management and treatment of the multiplied and complicated ills of body and mind to which the human race are incident: in fine, it holds up for our observation a high standard of medical and surgical attainment, practice and ethics, stimulating to individual and collective exertion, improving the faculty and benefiting the whole community.

The men who founded this society upon such a basis require no eulogium from me,—their acts attest their merit, and their self-sacrificing labors in the professional field, the cause of humanity, have erected for them monuments more enduring than the breath of praise if eloquently spoken or written. But in this connection, one saddening thought, unbidden, obtrudes itself upon my mind, viz: that they have all passed away, and that we, the inheritors of their labors can never again hold personal communion with them, look upon their faces more, or thank them for this their noble boon. But, we can cherish for them great and unfading memories; we can live in the light of their impressive and distinguished example, and we can see to it, that we transmit to those who may follow us, this their beloved institution, unimpaired, if not improved.

When I review the long line—the succession of the Presidents of this Society, and reflect upon their characters, virtues and abilities, their devotion to, their usefulness and their success in their profession, I must be pardoned if some little glow of pride animates my bosom, that I am permitted by the favor of my co-laborers in the medical department of this state, to stand here where they stood, and to be entered upon the official register embellished by their names.

Their lives have been honorable and elevating—their official acts dignified, just, ennobling—and, my brethren, I will endeavor, in this place, in good faith, to imitate their excellent example.

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

SIXTY-NINTH ANNIVERSARY.

HELD AT CONCORD,

MAY 31ST AND JUNE 1ST,

1859.

MANCHESTER:
PRINTED BY CHARLES F. LIVINGSTON.
1859.

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

SIXTY-NINTH ANNIVERSARY.

HELD AT CONCORD,

JUNE 31ST AND MAY 1ST, 1859.

MANCHESTER:
PRINTED BY CHARLES F. LIVINGSTON.
1859.

PROCEEDINGS.

THE NEW HAMPSHIRE MEDICAL SOCIETY held its Sixty-ninth Anniversary at the Court House in Concord, on Tuesday, May 31st, and Wednesday, June 1st, 1859, the President, Hon. NOAH MARTIN, M. D., in the Chair.

The records of the last meeting were read by the Secretary.

The following named gentlemen, having been recommended by the Council, were elected Fellows:

David T. Parker, M. D., Farmington;
N. C. Parker, M. D., Farmington;
John F. Butler, M. D., Chesterfield;
George Dearborn, M. D., Gilford;
A. Sidney Carpenter, M. D., Keene;
Josiah M. Blood, M. D., Temple;
John Goodell, M. D., West Boscawen;
J. G. Parker, M. D., Dublin;
John M. Rand, M. D., New Ipswich;

On motion, it was voted to reconsider the vote of last year to have an annual supper instead of a dinner.

Voted to dine at two o'clock, P. M.

Drs. Pray, of Dover, Moore, of Concord, and Webster, of Boscawen, were appointed by the chair to audit the Treasurer's account.

Drs. Fernald, Eastman, Stackpole, Robinson, Hubbard, Cummings, Woodbury, D. Crosby, Knight and Carr were appointed a Committee on Nominations.

Dr. E. K. Webster, from the Committee on the Revision of the By-Laws, made a report, in which he stated that he had come to the conclusion that to abolish the office of Censors would conflict with the provisions of the Charter of the Society; whereupon it was voted that the article requiring the appointment of Censors be retained in the revised edition of By-Laws.

Voted to publish Dr. Stackpole's Address before the graduating class at Dartmouth College, in November, 1858, in the Transactions.

The Report on Practical Medicine, by Dr. Roberts, was presented by the Secretary and referred to the Committee on Publication.

At twelve o'clock, M., the President gave his annual Address, which was referred to the Committee on Publication.

The Report of the Committee on Registration, by Dr. Fitch, of Amherst, was presented by the Secretary, read by Dr. Pray, and referred to the Committee on Publication.

Adjourned to three o'clock, P. M.

The Society met agreeably to adjournment.

The Committee on Nominations reported the following list of candidates for offices, who were duly elected.

President: JAMES B. ABBOT, M. D., Sanbornton.

Vice President: J. C. EASTMAN, M. D., Hampstead.

Secretary: WM. W. BROWN, M. D., Manchester.

Treasurer: L. M. KNIGHT, M. D., Franklin.

Councillors: Drs. E. G. Moore, R. P. J. Tenney, A. G. Fenner, P. A. Stackpole, Harrison Eaton, Alonzo F. Carr, J. P. Whittemore, T. M. Gould, G. A. Phelps, A. M. Caverly, John Clough, A. B. Crosby, S. W. Roberts, Nahum Wight.

Censors: Drs. A. A. Moulton, W. W. Wilkins, Charles Palmer, D. F. Parker, Thomas Wheat, E. Spaulding, Geo. B. Twitchell, Hosea Pierce, A. Smalley, Dixi Crosby, Alvah Moulton, J. F. Hall.

Committee on Surgery: Geo. B. Twitchell.

On Practical Medicine: Thomas H. Marshall.

On Epidemics: Francis P. Fitch.

On Obstetrics: E. H. Davis.

On Publication: W. W. Brown, Geo. H. Hubbard.

On Arrangements: L. M. Knight, Ezra Carter, C. P. Gage.

Orators for 1860: Albert G. Fenner, M. D., Dover; S. A. Richardson, M. D., Marlborough.

Substitutes: A. A. Moulton, M. D., Concord; Charles Palmer, M. D., Strafford.

Delegates to the American Medical Association: Silas Cummings, R. P. J. Tenney, J. S. Fernald, N. Wight, E. G. Moore, A. H. Robinson, Noah Martin, Geo. B. Twitchell, P. A. Stackpole, L. M. Knight, E. K. Webster, A. B. Crosby, W. H. H. Mason, A. Smalley, H. Pierce.

Delegates to Dartmouth College: A. H. Robinson, L. M. Knight.

Dr. Dixi Crosby, the Committee on Obstetrics, remarked that he had designed to make a report at this meeting, on Uterine Hemorrhage, but had not found sufficient time to prepare, and would be in readiness at our next Annual Meeting.

The Report on Surgery was read by W. D. Buck, M. D., and referred to the Committee on Publication.

Dr. Laighton read an Oration which was referred to the Committee on Publication.

The following resolution was offered by Dixi Crosby:

Resolved, That Dr. Chadbourn be requested to furnish a short biography of Henry Bond, late a Fellow of this Society; that Dr. E. K. Webster be requested to furnish a short biography of Dr. Nathan Sanborn; and that Dr. Dixi Crosby be requested to furnish one of Dr. S. G. Wood, all to be published in the Transactions.

Passed.

Adjourned, to meet to-morrow morning at eight o'clock.

WEDNESDAY, June 1, 1859.

Met agreeably to adjournment. Meeting called to order by the President.

Dr. J. S. Fernald read a paper on Scarlet Fever, &c., which was referred to the Committee on Publication.

Dr. D. Crosby made some interesting remarks on the connection of Scarlet Fever with Spinal Disease.

The following resolution was introduced and passed:

Resolved, That at our next Annual, we resume the custom of examining and prescribing for all patients that may come before us for that purpose; that a Committee of ten be appointed by the Chair at each Annual Meeting, to examine patients; that a fee of from one to three dollars be charged for each examination; and that all fees for such examinations be paid into the treasury of the Society.

Adjourned.

ANNUAL ADDRESS

Delivered before the New Hampshire Medical Society by NOAH MARTIN, M. D., President of the Society.

FELLOWS OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

We have again assembled by the favor of an ever kind Providence, to renew our associated efforts, in the promotion of medical science, literature, practical ability and social fellowship. Around this central altar, erected by our predecessors and by them dedicated to the above and other purposes, it is meet that we should annually congregate, essaying to trim its vestal flame, and gather from its glow, new inspiration, courage and zeal. A neglect in us, the legataries of the distinguished departed, annually, to present our votive offerings upon this shrine, and to sustain by every laudable endeavor, in undiminished vigor, the institution beneficently committed to our care, can not be contemplated without the self-accusation of ingratitude to them, want of respect for ourselves, and forgetfulness of duty to the public.

The men who founded this Society were influenced thereto by considerations eminently enlightened and fraternal, considerations which entitle them to the lasting gratitude and veneration of all who have been or may be received within its fraternal embrace. Their hearts were filled to repletion with the interests of the profession, its advancement and its honor; their aspirations in its behalf were circumscribed by no narrow, selfish, personal boundary, but expanded to the utmost verge of human sojourn, to the most insignificant wayfarer, whose necessities demanded the interposition of their skill. No labor was too much for their endurance, no obstacle too formidable for their courage and industry, when the profession and diseased humanity were the objects of exertion. They struggled on in an unassociated capacity, surrounded by difficulties, surmounting them as best they could, until

their hearts sighed for a more intimate, fraternal bond of sympathy, a well digested, a more perfect concert of action, based upon a standard of mutual regulation and co-operation, comprising qualifications of members, their deportment to each other, their patients and the public.

Such a comprehensive system, the result of careful deliberation, much labor, broad experience and wise forecast, they constructed, adopted — we have inherited and now enjoy.

In 1791, it was no slight matter to journey from the remote parts of the state to this medical center. The hills had not then been cut asunder, the valleys filled, the rivers and morasses bridged, the iron rails laid, and the iron horse harnessed to the car, proud in his trappings and unrivalled powers of locomotion. The grand facilities for inter-communication which we now enjoy had not then even entered the conception of man. The public highways were new, rough and circuitous; the mode of travelling was almost exclusively by horseback, both fatiguing and slow; it was labor to attend their convocations, an onerous tax upon their time, resources and business; but these were all waived by them. The profession of their choice and its interests, their duties as conservators of health and mitigators of the pangs of disease, their desire to meet their compeers in convention for mutual counsel and professional and social improvement, were paramount to all other considerations; sacrifices of time, labor and money were as naught to them if anything was added to the respectability and usefulness of the profession, or to the protection of the communimunity against empirical pretenders; and bravely and nobly they played their part in the drama of professional life. Long may this monument of their erection stand in unity and strength, heralding to the world their noble exertions for the best interests of the profession, the preservation of the health and consequent happiness of the community, and the harmony, prosperity and usefulness of their successors.

I cannot forbear, in this connection, to give the names of the grantees of this Society and their associates at their first meeting. More, much more is due them from this Society, and I trust that, ere long, some member of it, who can command the requisite

materials and time, will volunteer a sketch of their respective lives and characters.

GRANTEES.

BARTLETT, JOSIAH, *Kingston.*
BRACKETT, JOSHUA, *Portsmouth.*
BRACKETT, JAMES, *Lee.*
CARR, MOSES, *Somersworth.*
COGSWELL, WILLIAM, *Atkinson.*
CUTTER, AMMI R., *Portsmouth.*
GREEN, EZRA, *Dover.*
JACKSON, HALL, *Portsmouth.*
JACKSON, JOHN, *Portsmouth.*
OSGOOD, KENDALL, *Peterboro'.*
PAGE, BENJAMIN, *Exeter.*
PAGE, WILLIAM, *Charlestown.*
PARKER, WILLIAM, JR., *Exeter.*
PEABODY, NATHANIEL, *Exeter.*
ROCKWOOD, EBENEZER, *Wilton.*
ROGERS, JOHN, *Plymouth.*
SPARHAWK, GEORGE, *Walpole.*
TENNEY, SAMUEL, *Exeter.*
THOM, ISAAC, *Londonderry.*

ASSOCIATES AT FIRST MEETING.

BARTLETT, LEVI, *Kingston.*
CARRIGAN, PHILIP, *Concord.*
GALE, AMOS, *Kingston.*
GOVE, JONATHAN, *Goffstown.*
GREEN, PETER, *Concord.*
HOWE, JAMES, *Rochester.*
NICHOLS, MOSES, *Amherst.*
PRESTON, JOHN, *New Ipswich.*
RANNEY, THOMAS S., *Brentwood.*
SMITH, NATHAN, *Hanover.*

ASSOCIATION.

Man can do much alone. He can dig deeply for and treasure largely of science, literature and theory in an isolated condition, guided only by his impulses, instincts and reason, but in the application of his knowledge he requires the enlightenment of contrast, comparison, consultation and experience. In the friction of minds, the collision of views and the co-operation of wills, truth, strength and efficiency are evolved. In a conjoint effort composed of all the individual abilities of an association, integrated into one common purpose, moved by one great compound homogeneous heart, the pulsations of which are like the ocean's tide, regular, forceful and unceasing, more, much more can be effected than by individual, unassociated effort, if the object and the numbers are the same. Union of numbers and concurrence of wills multiply strength, progressive or defensive. In association there is a place for each, for all; each natural endowment, every attainment, taste and faculty finds an appropriate field of action, contributing and receiving. Youth gives its zeal, activity and hope, its untiring vigilance, unwearied exertion, confidence and faith, unchilled or saddened by the frosts of disappointment;

mid-age its steadied, matured support, poised and self-sustained by the rationalizing tuitions of observation and comparison, gleaned from a more extended field; varied and modified by the changing aspect of things and the expanding and improving powers to observe of occupied and energized intellect; and age unfolds its ample stores, accumulated through lengthened time and broad experience, reviewed, assorted, stripped of fancy's gloss, arranged, labelled, individualized, and bids you hearty welcome. The elements thus brought into co-operative play, give all the forces essential to harmony, progress, matureness and stability.

Such is this association for all the purposes of its organization. Its objects address themselves to every reflecting, scientific and honorable physician with great force, if permitted audience. Every regularly educated practitioner in this state, should by membership participate in its advantages, should encourage and sustain its forms and contribute to its strength and success. Its protecting Ægis is thrown over all, but not with that completeness which entire co-operative membership would establish. Elevation of the profession is to be attained through it, empiricism in all its sinuous ways counteracted by it, and progress in every department of the healing art is to be its crowning achievement.

Do not these demand all the individual and associated efforts of the entire faculty of this state? Do not these require your strength of hand, heart and intellect, your warmest affection and best exertions, and will not every lover of his profession, his species, their health, vigor and longevity wish to so associate himself as to render the most efficient aid in compassing the foregoing purposes? He surely will; none can hesitate, none must falter; and I trust our brethren of the healing art from Strawberry Bank to Indian Stream, from the Piscataqua to the Connecticut, from the borders of Massachusetts and Vermont to the confines of Maine, will rally to its standard.

Come, brethren, come! from valley, hill and plain, from village, city, town; we want your fraternal grasp, your cheering smiles, your hearty and active co-operation! What a glorious era in the medical history of New Hampshire would be inaugurated if every qualified practitioner in the state would here meet and worship at

this Esculapian shrine, and renewedly vow increased devotion to his art by the new consecration.

PREPARATORY AND PROFESSIONAL EDUCATION.

The respectability, efficiency and usefulness of the profession depend very much upon the thoroughness of the preparatory and professional education of its members. Good natural abilities, sound health, mental firmness, social proclivity and native taste and aptitude for the profession, quickened and developed by a full primary education and a thorough professional training, constitute the elements which produce a good physician; these mental and physical powers, conjoined with moral principles, religious sentiments, purity of habits and manners, industry and experience, make the good, the accomplished physician.

The good physician is a very important integral part of the social fabric. He performs functions of a peculiar, delicate and essential character, requiring qualifications of a high order—intellectual, medical, ethical. He stands by his patient in the most critical and trying circumstances, is the depository of their sensations, wishes and personal secrets, ministers to their physical and mental necessities, guided by his practical skill, mental and moral. Hence, if any man should be learned, skilled, refined and judicious, it is the physician. His learning should be equal to the requirements of his profession, his skill to its exigencies, and his integrity to the demands of purity and reposed confidence.

To secure the foregoing should be the great desideratum of the profession, and every measure from the initial of pupilage through the entire course to its perfected end, should tend undeviatingly to that consummation; and to that end it is essential, in my judgment, that the young man proposing to become a student of medicine should be subjected to a full examination, by some person or persons legitimately appointed and competent to judge of his natural and acquired fitness for the pursuit proposed, and if found qualified as above indicated, to certificate him to that effect, and further to encourage him in all other reasonable ways in his laudable and laborious undertaking. No matter from whence the preparatory qualifications come, whether from the college, grammar

school, closet, workshop or fireside, if they are possessed. The young man who acquires the requisite attainments unaided by the tuitions of academic tutorship, displays an energy and intellectual force which will insure success and usefulness in after professional life. The regular discipline of the schools and college is, for many important considerations, preferred, but the want of it should not operate as a bar to natural inclination, intellect and genius. The young man who firmly resolves to be a student through his whole life (and no one is fit for the arduous and responsible duties of the healing art who does not) will bring himself up to the literary and scientific point demanded by the honor and efficiency of the profession, if not favored primarily with the whole curriculum of liberal attainments. The struggle may be hard and somewhat discouraging, but the triumph will be sure, if courage supports and wisdom guides the way.

In illustration of the preceding, I will instance the first and last names upon the list I have just read of the grantees of this Society and their associates. That no injustice may be done to the distinguished name at the head of the list and the first President of this Society, I will give an extract from Davenport's "Dictionary of Biography; comprising the most eminent characters of all ages, nations and professions."

He says, "JOSIAH BARTLETT, Governor of New Hampshire, was born in Massachusetts, in 1729. Without the advantages of a *preparatory liberal education*, he began the study of medicine at a very early age, and commenced the practice of his profession at Kingston, N. H., in the year 1750. He soon obtained very considerable reputation, and was elected a member of the legislature of his province.

"When the troubles commenced between the colonies and the mother country, Dr. Bartlett espoused the popular cause and, in 1775, was elected to the Continental Congress. He was re-elected in the ensuing year, and had the honor of being the first to vote for, and the first, after the President, to sign the Declaration of Independence. In 1779, Dr. Bartlett was appointed Chief Justice of the Court of Common Pleas, and in 1788, he was advanced to the head of the bench."

In 1790, he was elected President of New Hampshire, that being the appellation by which the chief magistrate of the state was designated.

"In 1793, he was elected first Governor of the state," the Revised Constitution of 1792, having changed the title of the executive from President to Governor, "and filled the office with his accustomed fidelity until the infirm state of his health obliged him to retire wholly from public business. He died in 1795, much respected for his ability and integrity."

George Barstow, New Hampshire's faithful historian, records that "during the year 1791, with a view to elevate the character of the medical profession, to discourage quackery, and prevent unqualified pretenders to medical skill from imposing themselves upon the community, the legislature incorporated the New Hampshire Medical Society. Josiah Bartlett, the worthy chief magistrate of the state, was elected its first President."

The last illustrious name upon the list is thus alluded to by the same historian: "During the year 1798, chiefly through the exertions of Dr. NATHAN SMITH, of Cornish, a medical department was connected with Dartmouth College. Without the benefits of *early education*, and yet, possessed of distinguished skill, his talents and industry had given him a rank in his profession, which others, possessed of much greater advantages, have striven for in vain. For some years he was the only medical professor connected with the institution; and yet, difficult as the task must have been, unaided, and with very limited pecuniary resources, he gave it a highly respectable character. The medical college, thus established and recommended to the public favor, has since maintained a permanent and useful existence."

Thus we see that these two distinguished individuals, without the early scholastic advantages of the higher seminaries of learning, acquired for themselves an amount of literature and science, preparatory and professional, which gave them a skill, success and distinction, eminently enviable. They stood in acquirements in the first rank of their profession, to which the one superadded the attainments and graces of the civilian, and the other the erudition and lasting renown of good authorship.

Let no one despair who has the natural qualifications for the profession, for all the rest are attainable. Time, courage and well-directed industry will overcome difficulties of the most formidable character. What Drs. Bartlett and Smith achieved under the forbidding circumstances of their day, can be accomplished with our multiplied facilities, with fewer sacrifices and less labor.

We have this society, established and fostered by their efforts and affections, combined with those of their co-laborers, to invite to its protecting, fraternal embrace, the votaries of scientific medicine; the medical college, planted by the exertions of Dr. Smith, and sustained by his genius, single-handed and alone, through years of infantile weakness and penury, matured; its professorships filled with eminent ability, its cabinets stored with the illustrative materials requisite to the highest grade of surgical and and medical instruction, presenting to the young medical aspirant advantages unsurpassed by any similar institution in New England.

If New Hampshire does not present a learned, able and united faculty, it is not the fault of her advantages, but of ability to properly appreciate and improve them.

HARMONY IN THE RANKS OF THE FACULTY.

In all pursuits, especially where many are engaged with identical interests, nothing can be so promotive of happiness, prosperity and success, as harmony; harmony in construction, action and ultimate results. Among the members of the medical profession there should be harmony at the initiative in qualifications, preparatory and professional; there should be harmony in objects, measures and contemplated results; there should be harmony in habits, morals, manners and etiquette, and harmonious emulation in contributing to the progress, usefulness and honor of the profession. If this degree of harmony existed, how much of injurious discord and dishonorable jarring would be obviated; how much ill feeling prevented, which, if repressed for a time, ripens in the end into open hostility.

Members of the profession in the immediate neighborhood of each other, are but too apt to entertain jealousies and envyings,

which lead to disparaging insinuations, coldness of manner and internal exultation at the misadventures of each other; from insinuations, open declarations of faults, foibles and delinquencies trip along, coldness of manner stiffens into freezing deportment and the suppressed exultation at misfortune shows itself in unrestrained gladness. The rivalries of self-interest are suffered to fill their thoughts, crowd their utterances and dictate their conduct. Their greatest desire seems to be the engrossment of business, by all manner of means, irrespective of the rights of their brother, or the honor and dignity of the profession. They seem, in their strife for patients and the emolument derived therefrom, to lose sight of the fact that as they esteem and treat each other, the community will esteem and treat them also, and the public will respect the profession of which they are members in proportion as they respect themselves. They seem to merge the exalting and fraternizing principles of their consecrated calling in the sordid contest for pecuniary reward, regardless of the monitions of justice and fraternal right.

These things ought not to be so. They are at war with all that is ennobling, just and honorable in the profession, as well as highly detrimental to the individual interests and respectability of its members. The members of the profession should look upon themselves as one great brotherhood, educated and destined to a laborious, responsible and exacting service in the social organization,—honorable, humane and essential, above degradation, except through the degeneracy of themselves. Each is an essential part of the great whole. The integrity and fidelity of each forms an integral part of the great aggregated heart and character of the body. Each supporting and being supported in return, their interests are one, identical, reciprocal; hence, each is responsible for the character, elevation and success of the fraternity. The assaults of every species and variety of empiricism will be as harmless to scientific medicine and its practitioners as the attacks of a myriad of Liliputians upon the stability of the eternal, granitic structure of Mount Washington, if harmony pervades the bosom of the faculty.

The discords among practitioners themselves have done more to

disparage the profession, weaken its hold upon the confidence of the public, and indirectly encourage ignorant pretenders to the healing art, than all the *pathies* and *isms*, from Paracelsus with his infallible elixir, down to Samuel Thompson with his cayenne and lobelia, Samuel Hahnemann with his dilutions, shakes, trituration, infinitesimal doses and sugar pellets, and Samuel Dickson with his chronothermal theories and electrical nonsense. Three Samuels and not a prophet! Let the practitioners of rational medicine support each other, sustain themselves by high and honorable conduct in their intercourse with each other and the profession, stimulated by that commendable rivalry which only prompts to the highest attainments in their art from the love of knowledge and the benefit of those who may require their services, and all the pratings, boastings and denunciations of the empirics will vanish, without the defensive movement of even a finger on their part.

I look upon these false systems of medication as self-limited moral diseases, the joint product of ignorance and fanaticism operating upon fanciful and restless minds — minds impatient of, and incapable of appreciating, the processes of rational medicine, delirious in the chase for something new, marvelous, exotic and guided in the pursuit by prurient fancy alone.

HUSBAND YOUR FINANCES WELL.

When time in the execution of his work has impressed his signet indelibly on every feature, when the system has abated its elasticity of limb and its accustomed activity and endurance have failed, when the excitements, labors and responsibilities of the profession have become oppressive and its incidental exposures impracticable, and every faculty of body and mind calls for repose, it will surely be agreeable, most agreeable, to have something accumulated from your toil and solicitude and exposure, to glide you gently, quietly and independently down the declivity of life, solacing your waning days and cheering your juniors on by your senile comforts and good example.

If the members of the community, in many instances, are inclined to forget us, we should not forget ourselves. If some are

disposed to ignore the sacred maxim that "the laborer is worthy of his hire," they should be reminded that we do not, as relates to ourselves or to others. Those who would be served promptly, faithfully and continuously, at all hours and on all occasions, should remember that the physician requires substantial remuneration, not eternally delayed, to maintain himself and his in that respectable and easy comfort, coveted and enjoyed by most of his patrons.

It should be remembered, also, that the physician's outfit is no trifle; his preparatory and professional education has cost something in time, labor and money; his books, instruments, medicines, traveling equipage, office appointments and all the requisite personal defences against the assaults of winds, rain, sleet, the howling tempest, incident to day and night excursions, cost something. These, to be maintained, must be renewed, and, to be renewed, must be met by continual expenditure. Classical acquirements will gradually be forgotten unless revised; professional attainments will fail to meet the demands of practice, without review and the addition of current discovery and improvement; books will wear out or become obsolete, and must be replaced by new works or enlarged and improved editions; periodicals must be purchased and perused, to make available the earliest surgical and medical intelligence of Europe and America; instruments will corrode, get injured and become useless, and improvements will supplant the old and demand new outlay; medicines will become exhausted and require replenishment; horses and carriages, by exposure to storms, night service and constant, severe driving, will surely fall into premature decay, requiring an expenditure in renewals, quadruple that of ordinary service; and over and above all, the wear and tear of the practitioner's body and mind, peculiar to his professional pursuits, increased liability to accident, physical impairment and abridged longevity. These all stand forth, emphatic monishers to us, that pecuniary justice should soon respond to faithful, essential and responsible services. Let the same compensatory justice be meted to us that is to the merchant, clergyman, lawyer, mechanic and artist; we ask no more; we should expect, aye, insist on that.

The poor in purse from misfortune and necessity are ever to be remembered and served with alacrity, regardless of compensation; the poor in spirit but rich in purse are also to be served with cheerful fidelity, and especially remembered when the substantial supplies demand an audience and urge with truthful eloquence the the just, the prompt requital of meritorious and responsible services. No men perform so much service gratuitously as physicians, under such unpleasant and exhausting circumstances, and for which so little gratitude flows. The quaff of ale, the mess of tea, the pipe of tobacco produce more grateful demonstrations to the donor than the midnight ride, the soothing, healing potion and weary hours' attendance at the bedside, to the physician. In rendering these services, the physician's hours of necessary repose are invaded, the time that should be devoted to domestic arrangements, enjoyments and private affairs is interrupted, and the moments that others can so agreeably and profitably devote to amusements and social pleasures are broken in upon or denied. The scenes of their labors are almost invariably scenes of distress, anguish and deep solicitute in undisguised reality. Their contemplations are mostly grave, filling the mind with solemn thoughts, depressing apprehensions and serious responsibilities, to the exclusion of the cheerful, gay and elating, and were it not for the pleasing consciousness of duty well performed and the approbation of HIM whose smile cheers the darkest hours of the painstaking and self-sacrificing, they would, in many instances, succumb and abandon their calling.

THE HABITS OF PHYSICIANS.

The habits of physicians should be such, as not to impair their health, exhaust their means, or present an example unworthy of imitation. I am happy to say, from personal knowledge, that most of the members of the regular faculty of this state, in habits, manners and morals, stand upon an elevation unsurpassed by any class of our citizens. Their moderation and regularity in the use of eatables and drinkables, their strict observance of all the proprieties and courtesies of life, social and ethical, may challenge comparison with the strictest hygienist and moralist.

In reforms of every kind they have acted their part and evinced their humanity — more, perhaps, by quiet speech and unobtrusive example than by noisy prate, studied and lengthened oration.

In the excessive use of distilled and fermented liquors, which some years since prevailed in all grades of society to such an alarming extent, they did more than any other class of our citizens, in proportion to their number, to bring about the necessary abstinence; not that their desires in the good cause were more ardent, their policy more judicious, their exertions more untiring and their love for the race or its interests greater, but their opportunities to make the appeal under peculiar and more favorable circumstances, their professional abilities and health-conserving authority sanctioning the same, enforced by their own example, gave them a suasive strength, power and influence beyond their co-laborers. When consulted by patients whose diseases had been produced or aggravated by the use of intoxicating beverages, they failed not to discharge faithfully the duties of their high mission, by fearlessly declaring the producing or aggravating cause of the disease and the absolute necessity of abstinence. The fact that life and health, comfort and social standing all hinged upon fidelity in abstinence, was enforced with the solemn sanction of truth and science.

I fear, from present indications, that it may be necessary for the faculty again to gird on their temperance armor and fight the battle o'er; and I *do see a present necessity* for medical men to array themselves against a potent foe to health, manners and decency — I refer to the habitual use of the drug *tobacco*. In the first place, physicians should purge themselves of the hateful and injurious habit, by consigning the drug to the custody of the pharmaceutist, as far as possible, in proximity with its kindred fermented and distilled liquors. It is unnecssary for me to go into a description of the physical, chemical and therapeutical properties of the drug to an assemblage of physicians; you, gentlemen, have studied it in all these forms scientifically, tested its powers practically as a remedial agent in some cases of obstinate disease, observed its effects upon the human system in its normal condition, and experienced its deleterious action but too often in

your own persons, when habitually used by you. You have often seen its baneful influence in its least frequent mode of use, snuffing, in the entire destruction of one of the five senses, that of smell, and in its sad alteration and permanent impairment of the voice. In the more common forms of its use, smoking and chewing, you have observed the unpleasant expectorations engendered thereby, the offensive and suffocating odors with which the atmosphere has been impregnated by it, and the filthy condition of mouths, apartments and furniture where its consumption has been executed, annoying to all except the performers, and at war with good manners, cleanliness and the preservation without mar of the habiliments of either sex. When consulted by invalids, the habitual users of the drug, you have witnessed its sedative, narcotic and enervating influences upon the system generally, and especially upon the brain, nerves, lungs and digestive organs.

Knowing, therefore, as you do its good qualities when used judiciously, therapeutically, and its bad influences when used habitually, physiologically, its offense against the laws of health, physical and mental vigor, it would seem to be your imperative duty to abstain from its non-medical use, and, both by precept and example, show to the world your sense of its injurious effects upon health, manners and longevity.

Brethren, we are members of an ancient, learned and honorable profession, the acknowledged functions of which have ever been the cure and the prevention of disease,— the latter has been too much absorbed in the former for the honor of the profession and the good of the race; we are the accredited restorers of the diseased and the conservators of the public and private health; on these depend perfection of the species, physically, mentally and ethically; we have duties of a grave and solemn import to perform, not only in the sick-room in the fearful contest with established and intractable disease, but in our daily walk and intercourse with society, of a preservative, a hygienic character; and when we observe habits taking deep root, spring up and "spreading like a green bay tree," which we know from scientific deduction, observation and experience, will surely work the

degeneracy of our species in body, mind and character, we shall be recreant to every incentive of duty, false to every noble and philanthropic impulse of our natures, if we fail by word and example to declare the dangers which lurk beneath the seductive smiles of the insiduons foes.

Brethren, let us ever apply ourselves to the profession of our choice with all the ennobling and elevating energies of our natures; let us unceasingly endeavor to prove ourselves, under all circumstances, worthy of our high vocation, discharge our duties faithfully to our God, society and ourselves, resting in trustful hope for that glorious announcement at the last, "well done, good and faithful servant."

REPORT

OF THE COMMITTEE ON PRACTICAL MEDICINE.

By Samuel W. Roberts, M. D.

Fellows of the New Hampshire Medical Society:

No one, better than myself, can appreciate the difficulties I found myself placed in, by being appointed, at your last session, a committee on Practical Medicine. Young in the profession, comparatively a new member of your society and located in a region of country noted for its freedom from disease, especially of an epidemic character, I knew almost any *fellow* was better situated than myself to make a useful report on such a subject. But, of apology, enough.

The past year has been one of unusual health, in our part of the state. There has been much less than the usual number of cases of typhoid fever, pneumonitis, or dysentery, and nothing of a specific or epidemic character. The former disease, however, is confined mainly to localities in this region, and those localities, so far as known, are near waters subject to sudden rises and falls. Within a few years it has been of a very severe type in some of these, sometimes being confined to one family and nearly devastating it, sometimes extending to several.

We had a violent, though not very extensive epidemic of scarlatina, commencing in November, 1857, and subsiding in June, 1858. It was quite malignant in its character, attacking even adults, two of whom, young men, died with it. The treatment of greatest service, apparently, in violent cases, was the early and free use of stimulants and tonics, of ammonia, alcoholic stimulants, serpentaria, quinine and beef tea, of opiates sufficient to quiet the nervous system, and of the application of capsicum

to the fauces. The surface was often briskly and freely rubbed with dry flannel or flannel and mustard until the eruption was fully established; the rubbing then with bacon seemed useful. I am convinced, however, that, as a whole, this disease is treated altogether too much — that fatality, in many instances, is caused, not by the affection, but by the meddlesome practitioner. By far, the large majority of cases require no treatment or next to none. The physician may, if he choose, use his milk and water, his ipecac and saffron, his bacon or lard, his sodæ et rheum in such a way as not to interfere with the vis medicatrix naturæ, to prevent a deluge of saffron, rue and catnip teas, decoction of the excrement of sheep, and worse than fooleries, by well meaning but ignorant nurses; but his lancet, nitre, calomel and cantharides let him keep in his trunk.

I trust this society will excuse me if I transcend the limits of my appointment and earnestly call their attention to what, in my view, is getting to be a very extensive evil. I make due allowance for popular errors in regard to it, for the overwrought, unnatural pictures which charlatans and quacks have drawn of it, and then hazard little in saying that the perversion and abuse of the reproductive functions is doing more damage to the health of New England society, than all other forms of disease combined. Have I made a wild assertion? If so, then the experience of other medical men differs from mine. If so, what mean the reports of our Insane Asylums? If so, what mean the suddenness and the commonness with which now the rose leaves the cheek of the young bride, her form becomes attenuated and cadaverous, and the whole system becomes tortured in a short period of married life by chronic uterine disease, her offspring being few and those puny? If so, what shall be said of the extent to which criminal abortion is practised, and of the almost scores of young men and women, in every physician's circuit, whose mental, moral and physical powers are so seriously impaired by secret indulgence? Marriage is being converted into prostitution; as a consequence, families are reduced in size and the lives of many mothers made a burden of misery; the social feelings are destroyed and hypochondriasis, dyspepsia,

anemia, palpitation, headache are induced, and, to wind up the gloomy scene, consumption steps in and carries its oft willing prey to the tomb.

What then is the duty of the medical profession, if such are the facts? Shall it stand and look quietly upon such an onslaught upon the morals and health of community, or shall it throw its combined influence against it? Shall it seek to procure more strenuous laws for the punishment of abortion, to make known its *real* criminality, and, also, the *wretched* consequences of masturbation and irregular, excessive sexual indulgence, or shall it wink at and, in some instances, aid on the former and leave the latter to be plastered over and drugged to death by merciless, mercenary, ignorant, unprincipled quacks? I know there are those who believe that spermatorrhœa is of very infrequent occurrence in this country and that too much attention is paid to it; that most harm in relation to it results from certain books, published with a mercenary design, coming to the notice of patients. I am forced to dissent from this view, notwithstanding its high authority; we grant, however, that a distinction, a wide distinction should be made between those cases of involuntary seminal emissions, occurring in young men of full plethoric habit and accompanied by lascivious dreams and not preceded by masturbation or any other excessive venereal habit, and those diurnal and nocturnal pollutions, produced by such habit. The former is not spermatorrhœa and is generally harmless, unless the patient's imagination is excited by some charlatan book; the latter alone constitutes this disease, and is of common occurrence, the cases being more than could be counted on one's fingers, as Dr. Slade says,* and to me it is a matter of surprise that physicians, more especially those of older practice, should pay so little attention to it. As a consequence, the brain, the heart, the stomach, lungs and liver are made the objects of treatment, while the genetalia, the seat of derangement, are overlooked. By such neglect, many patients find a premature grave or are compelled to drag out a life of idiotic insanity in the mad-house. Cases of spermatorrhœa of very infrequent occurrence! I can hardly see where the phys-

*New Hampshire Medical Journal, vol. 5: no. 3, p. 57.

icians' eyes are, who cannot count them almost by dozens; and not seldom the finest intellects we have are destroyed by it.

I have introduced this subject, to me an unpleasant one, more from a sense of duty and a desire of so calling the attention of this society to it that some means may be suggested by which the evil may, to some extent, be mitigated or prevented, than to advance any views of its treatment; still, it may not be unadvisable to add a few words on this point. Its diagnosis is generally plain; indeed, when a physician has a case of which he cannot make anything definite, he is quite sure, *rem acu tangere*, to call it that, he will rarely be mistaken; if there be headache which has been of long standing, flatulence, constipation, coldness of extremities, pain in the side, drowsiness and morbid appetite, it may be suspected; but if to these symptoms are added frequent micturition, weakness of back, deranged vision, incoherence of thought and expression, peevishness and a misanthropic disposition, the physician may be morally certain of the disease, and *never* should let such a patient pass without being closely interrogated in regard to it. These symptoms, however, may present every variety of combination and shade, but the headache, confusion of thought and expression are almost infallible symptoms of it when not directly traceable to any other cause.

In the treatment of this disease, the cause, whether it is masturbation, which is by far the most frequent, excessive sexual indulgence, blenorrhagia or alcoholic stimulants, should, of course, be removed. Then the condition of the urethra should be ascertained; if in a state irritation or inflammation from long continued exercise, if the emissions are diurnal as well nocturnal, and if impotency has or is near taking place, probably no remedy can equal cauterization of the membranous portion of the urethra; combined with this, tonics, of various kinds, and such as may be found best suited to the patient, may be used; a good one is a pill composed of 2 grs. Ferr. Cit., 1 gr. Pulv. Rhei. and ½ gr. Alc. Ext. Nux Vomica, given two or three times a day, according to circumstances; a milk diet is as good as any. There should be such exercise in the open air as the patient will bear, and even if carried occasionally to fatigue, so much the better; traveling,

where the scenery will be such as to fill the patient's mind with pleasant thoughts, to call his attention from himself and from his disease, and any employment which will divert him, and cold ablution, if there is sufficient tone to establish a healthy reaction — certainly not without, are valuable auxiliaries.

When the urethra has been restored to its natural tone, when the diurnal and emissions at defecations have ceased, when the virile power has fully returned and is importunate in its demands, when there are only nocturnal emissions and those accompanied by lascivious dreams, sexual intercourse may be allowed, and marriage, if properly conducted, is the best remedy; but when resorted to under circumstances previously described, it not only hastens the destruction of the patient, but does much towards destroying for life the happiness of his companion; and much mischief has doubtless been done by physicians advising marriage indiscriminately, in cases of spermatorrhœa. We have heard a man, who, in our judgment, has few medical superiors, state unqualifiedly, while lecturing on this subject, that marriage was a sure cure. Suffice it to say that we could readily prove that he was mistaken. Physicians should be careful how they give any advice, especially how they advise the formation of such a sacred relation, under such circumstances; before giving any such directions they should know well the condition of their patient. There are cases in which this is the proper remedy; cases in which there is not inflammation of urethra from masturbation; in which the constitution is not seriously impaired and accompanied only by nocturnal emissions and those connected with lascivious dreams; cases too in which emissions are the result of nervous excitement or the reading of obscene books. Such cases require little medical treatment. If the patient can be made to believe that he is not injured by his habit and induced to take no notice of it, the cure is more than half effected; if, however, he is determined to have something done for him, let him have a pill of lupuline every night, sleep on a matress, on his side, with as little covering as possible. All obscene books and company should be dismissed, exercise to fatigue should be taken every day, so that when the bed is sought, tired nature shall soon be absorbed in balmy sleep.

and not have time to be disturbed with lascivious thoughts. The patient should arise as soon as sleep is over and not doze in bed.

I will not longer trespass upon the society's time or patience with this unpleasant subject. What I have said I hope will be received in the spirit in which it was uttered. The remarks are before you, gentlemen, and it is for you to say whether this society as such can adopt any measures to prevent or mitigate the evils to which I have briefly alluded. The victims of the solitary habit form it, in most instances, without any knowledge of its consequences. Can this knowledge be put into the hands of teachers (for it is at school the habit is frequently contracted), parents or guardians, and by them so used as to prevent its common extent? Can the deleterious results of the various expedients resorted to to prevent the accomplishment of the great natural design of marriage, be avoided, by a knowledge of them being made known? These expedients may be divided into two classes: the prevention of conception and the induction of premature labor. The former is more injurious and quite as criminal as the latter. It is more injurious because often the cause of disease to both parties, and quite as criminal because it as effectually defeats the real object of marriage; it in fact converts the husband and wife into paramour and prostitute.

VITAL STATISTICS

OF THE TOWN OF NEWPORT, NEW HAMPSHIRE,

FROM JANUARY, 1837, TO JANUARY, 1859.

By John L. Sweatt, M. D.

Regarding the subject of human statistics, both vital and mortuary, as one of much importance and deserving every reliable contribution thereto, however small of value, I desire to communicate to this society some results which have occurred within my own observation, and extending over a period of twenty-two years, in the town of Newport, which has been my residence and the place of my professional labors. Attention will be directed chiefly to two considerations, the first pertaining to the longevity of all who have deceased during this period, and the second to the proportion of the mortality arising from pulmonary consumption; but, in order to render these results of interest and utility, it will be necessary to precede them with a brief history of circumstances directly bearing upon them.

Newport is centrally situated in Sullivan county, being its shiretown and containing an area of nearly six miles square, having a surface diversified with hills and valleys. It is watered by the different branches of Sugar river, the main trunk passing through the town from east to west at nearly equal distance from the northern and southern borders, being joined near the middle by the south branch and, a little farther onward, it receives one from the north, so that the town is traversed in both directions by important streams of water with such a grade of descent as to afford fine privileges for manufacturing and mechanical purposes. The soil, though variant, is generally of easy cultivation and is well adapted to agriculture, producing in abundance, grass and

all the cereals common to New England. Upon the borders of the several branches of the river are fertile meadows, composed of a rich marl. Back of these the soil becomes sandy or gravelly, and still more remote, it is in some sections cold and wet, while in others it is deep, mellow and productive. The village is situated near the center of the town and in the immediate vicinity of the junction of the rivers. From this point the land rises irregularly in nearly every direction, so much so that the remote parts of the town are elevated from two to six hundred feet above the village, the river making its exit in a circuitous manner through a gorge.

According to the United States census of 1840, Newport had one thousand nine hundred and fifty-eight inhabitants, and to that of 1850, two thousand and twenty, the number of males and females being very nearly the same. The present population is somewhat greater than in 1850, so that the average for the period under consideration would vary but slightly from two thousand. For industry, intelligence, temperance and the practice of all the higher virtues it is presumed this community would not suffer in comparison with any in the state, and, as illustrating still farther their character, it may be stated that four congregations, respectable in numbers, are weekly assembled throughout the year for religious observance. With such habits and principles it will be inferred, as is the case, that want is a stranger and that the comforts, conveniences and luxuries of life are quite generally shared by the people. The town is both agricultural and manufacturing, about eight hundred of the inhabitants residing in the main village, the remainder more or less distant therefrom. The diseases prevalent here have been such as pervade our whole New England, no very fatal or general epidemic having occurred with the exception of scarlatina, in 1840, at which time twenty-five deaths resulted from this cause, and again in 1858, producing ten deaths. Annually typhoid fever has been present, the number of cases seldom, if at all, falling as low as a score and some years exceeding one hundred. Dysentery has been a common affection in the summer and early autumn, never failing in its visitations, and producing a larger mortality among children than any other disease. Pulmonary

affections, as bronchitis, pneumonia and phthisis, have been common.

With the topography of the town, the number, character and pursuits of the people thus stated, the way is now prepared to appreciate the mortality and profitably to compare the facts with those of other places where like statistics are already or may in future be collected. To render these as intelligible as may be, a table has been prepared, giving the mortality of each year, also the sex and ages of the deceased. This report commences with January 1st, 1837, and closes January 1st, 1859, a period of twenty-two years, and is as follows:

TABLE I.

	No. of Deaths.	Males.	Females.	Sex unknown.	Below 10 y.	Between 10 and 20.	Between 20 and 30.	Between 30 and 40.	Between 40 and 50.	Between 50 and 60.	Between 60 and 70.	Between 70 and 80.	Between 80 and 90.	Beyond 90 years.
1837.	30	15	14	1	8	0	2	1	4	4	5	5	0	1
1838.	34	16	13	5	15	4	1	2	5	2	2	1	0	2
1839.	27	8	17	2	3	3	4	4	4	4	3	2	0	0
1840.	64	29	25	10	37	5	9	2	2	1	2	3	3	0
1841.	30	13	16	1	5	4	2	5	3	2	3	4	2	0
1842.	32	11	18	3	5	3	2	6	3	3	3	4	3	0
1843.	37	13	13	11	18	0	4	1	4	3	2	1	3	1
1844.	40	12	21	7	12	4	4	4	2	2	3	7	2	0
1845.	31	11	19	1	13	1	5	1	1	2	4	1	3	0
1846.	36	24	11	1	13	1	4	3	0	4	2	3	4	2
1847.	32	12	19	1	8	5	3	2	2	1	3	4	4	0
1848.	26	12	14	0	7	3	1	2	1	2	2	5	3	0
1849.	44	16	26	2	13	1	7	2	3	5	5	4	2	2
1850.	23	14	9	0	2	3	3	4	1	1	3	4	2	0
1851.	23	15	7	1	8	0	1	0	3	1	5	4	1	0
1852.	41	17	24	0	14	3	6	2	2	3	3	5	3	0
1853.	36	18	17	1	9	4	9	1	1	3	3	1	3	2
1854.	46	18	26	2	7	3	6	4	4	3	4	9	4	2
1855.	30	16	13	1	5	2	3	2	4	3	6	1	4	0
1856.	36	11	24	1	8	2	5	3	2	4	6	2	3	1
1857.	42	23	17	2	9	5	2	4	6	0	8	5	0	3
1858.	46	25	19	2	15	6	6	1	2	3	3	5	3	2
	786	349	382	55	234	62	89	56	59	56	80	80	52	18

From this table it will be perceived that the whole number of deaths which have occurred during this period is seven hundred and eighty-six, giving an average for each year of thirty-five and eight elevenths in a population of two thousand, or a fraction below eighteen deaths to a thousand inhabitants, it being

annually one death to fifty-six of the population. Of these seven hundred and eighty-six deaths, three hundred and forty-nine were males and three hundred and eighty-two were females; the sex of fifty-five is not ascertained, they being for the most part very young children. Two hundred and thirty-four, or nearly one third this number were below ten years of age. Of the remainder, nearly an equal number, viz: two hundred and thirty, attained to sixty years and upwards; one hundred and fifty attained to seventy and upwards; seventy, to eighty and upwards; and eighteen lived beyond ninety, averaging each ninety-three years, one month and ten days. Of these eighteen, eight were males and ten were females. The greatest mortality occurring during any decade of years after the first, was from twenty to thirty, and amounts to eighty-nine, and the greatest mortality of any year was in 1840, and amounted to sixty-four; the lowest was in 1850 and 1851, it being each year but twenty-three.

A table has also been prepared, designed to exhibit the aggregate and the average existence of those who have deceased during each year, of those under ten years, of all over ten years, and of the males and females over ten, respectively, and is as follows:

TABLE II.

	Mortality.	Aggregate existence of all in years.	Average existence of all.	No. below ten years.	Aggregate existence.	Average existence.	Whole No. beyond ten.	Aggregate existence.	Average existence.	Males beyond ten.	Aggregate existence.	Average existence.	Females beyond ten.	Aggregate existence.	Average existence.
1837.	30	1286	42.86	8	27	3.37	22	1259	57.23	8	441	55.12	14	818	58.42
1838.	34	911	26.80	15	33	2.30	19	878	42.21	11	484	44.00	8	394	49.25
1839.	27	1010	37.40	3	2	.67	24	1008	42.00	8	377	47.12	16	631	39.43
1840.	64	1181	18.45	37	82	2.21	27	1099	40.70	10	537	53.70	17	562	33.05
1841.	30	1188	39.60	5	8	1.60	25	1180	47.20	9	513	57.00	16	667	41.70
1842.	32	1323	41.35	5	11	2.20	27	1312	48.59	10	540	54.00	17	772	45.41
1843.	37	1057	28.56	18	19	1.05	19	1038	54.63	9	441	49.00	10	597	59.70
1844.	40	1394	34.85	12	32	2.67	28	1362	48.64	11	564	51.27	17	798	46.94
1845.	31	939	30.29	13	18	1.38	18	921	51.16	4	222	55.50	14	699	49.93
1846.	36	1328	36.88	13	23	1.77	23	1305	56.73	9	532	59.12	14	773	55.21
1847.	32	1223	38.22	8	10	1.25	24	1213	50.54	8	452	56.50	16	761	47.57
1848.	26	1069	41.11	7	12	1.71	19	1057	55.63	9	573	63.67	10	484	48.40
1849.	44	1660	37.72	13	31	2.38	31	1629	52.55	13	745	57.30	18	884	49.11
1850.	23	1000	43.48	2	3	1.50	21	997	47.47	13	663	51.00	8	334	41.75
1851.	23	923	40.13	8	8	1.00	15	915	61.00	10	643	64.30	5	272	54.40
1852.	41	1401	34.17	14	30	2.14	27	1371	50.77	10	574	57.40	17	797	46.88
1853.	36	1236	34.33	9	12	1.25	27	1224	45.33	14	696	49.71	13	528	40.60
1854.	46	2125	46.20	7	15	2.14	39	2110	54.10	15	939	62.60	24	1171	48.79
1855.	30	1310	43.66	5	9	1.80	25	1301	52.04	12	660	55.00	13	641	49.30
1856.	36	1455	40.41	8	18	2.25	28	1437	51.32	10	541	54.10	18	896	49.70
1857.	42	1703	40.55	9	16	1.77	33	1687	51.12	19	893	47.00	14	794	56.71
1858.	46	1555	33.80	15	32	2.13	31	1523	49.03	15	688	45.87	16	835	52.18
	786	28277	35.98	234	450	1.93	552	27826	50.40	237	12718	53.66	315	15108	47.96

This table for the twenty-two years affords this result: the whole number who have deceased is seven hundred and eighty-six, having passed an aggregate existence of twenty-eight thousand two hundred and seventy-seven years, giving to each individual an average life of about thirty-six years, it being thirty-five and ninety-eight hundredths years. Of the seven hundred eighty-six, two hundred and thirty-four were below ten years of

age at death, having had an aggregate existence of but four hundred and fifty-one years, averaging one and ninety-three one-hundredths years to each. Five hundred and fifty-two were beyond ten, and had passed an aggregate existence of twenty-seven thousand eight hundred and twenty-six years, giving to each an average life of fifty and forty-one one-hundredths years. Of this number (five hundred and fifty-two), two hundred and thirty-seven were males with an aggregate existence of twelve thousand seven hundred and eighteen years, averaging to each a life of fifty-three and sixty-six one-hundredths years, and three hundred and fifteen were females with an aggregate existence of fifteen thousand one hundred and eight years, averaging to each forty-seven and ninety-six one-hundredths years, showing a longevity of male over female life of five and seventy one-hundredths years with all who had attained to ten years of age, and giving to the two hundred and thirty-seven males an aggregate of one thousand three hundred and fifty years of life over an equal number of females.

But the second consideration has reference to the mortality arising from pulmonary consumption. This is a disease which has long been justly regarded as the scourge of New England, and though hope has occasionally been enlivened in the bosom of the physician and the philanthropist by the discovery of new medicinal agents or by the application of new principles, it has soon waned, and the march of phthisis has gone steadily forward, annually claiming a large number of victims from among those in the morning and middle periods of life. By the investigations and observation of our profession, it is acknowledged that much light has been shed upon this intricate and subtle disease and upon the treatment proper to pursue in all its stages; but from its general mortality when once developed, as well as from the fear awakened by slight pulmonary indisposition, another class of minds has been stimulated to enter the field, influenced not by motives of regard to science or to humanity, but by those of a purely mercenary character. Hence, notices of nostrums which are sure to effect cures in every form of pulmonary derangement, are constantly meeting the eye and are thrust upon the attention of the diseased one and his friends with the most positive assur-

ances of benefit. And thus, in many instances, there can be no doubt, cases which would readily yield under the judicious management of modern enlightened medicine, become, by neglect, phthisis fully developed. In this way can we easily account for the high mortality of consumption, notwithstanding the improved hygiene and medical treatment of the present day.

To show how unceasingly the tuberculous element is destroying life, a table has been prepared, giving the result in a population of two thousand, for the period of twenty-two years.

TABLE III.

Years.	Males.	Females.	Total.	Aggregate age of Males.	Aggregate age of Females.	Average age of all.
1837.	1	3	4	48	99	36.75
1838.	2	0	2	73	...	36.50
1839.	0	5	5	..	194	38.80
1840.	1	10	11	27	311	30.72
1841.	3	6	9	95	184	31.00
1842.	1	3	4	46	78	31.00
1843.	1	2	3	38	46	28.00
1844.	2	5	7	78	183	35.85
1845.	2	5	7	79	194	39.00
1846.	6	2	8	246	52	37.25
1847.	1	8	9	69	294	40.33
1848.	1	4	5	47	114	32.20
1849.	5	8	13	150	226	32.00
1850.	1	2	3	22	85	35.66
1851.	1	2	3	43	74	39.00
1852.	2	3	5	45	137	36.40
1853.	3	4	7	73	92	23.57
1854.	1	7	8	20	263	35.37
1855.	2	2	4	70	54	31.00
1856.	3	4	7	120	182	43.14
1857.	2	0	2	129	...	64.50
1858.	5	4	9	178	172	38.88

From this it is found that one hundred and thirty-five deaths have arisen from this cause, forty-six of which were males and eighty-nine were females, the latter being very nearly double the former. The average duration of the lives of these one hundred and thirty-five persons was but thirty-five and three one-hundredths years, being less than the average of all who have deceased during

the same time. This number (one hundred and thirty-five) constitutes about seventeen per cent. of the whole mortality, and if those under ten years of age are deducted, very nearly twenty-five per cent. of the remainder. Truly this is a fearful ratio of mortality to arise from a single disease in a locality that may be regarded as favorable to health, and the more deeply are we thus impressed when considering that the victims are mostly between fifteen and forty-five years of age; but, fearful as it is, nearly the same results, it is presumed, would be obtained by closely investigating the mortuary statistics of almost any district in our northern latitude. Certainly such is the fact as relates to the principal cities from Baltimore to Boston. By tables published, it appears that the deaths from consumption are in the proportion of the whole mortality in—

Baltimore,.....of 1 in 5.70	New York,.....of 1 in 6.33
Philadelphia, ...of 1 in 7.03	Boston,.....of 1 in 6.51

And by the mortuary statistics of the last United States census, of all the deaths reported from all diseases, there were from consumption in the state of—

Maine,..... 1 in 4.45	Massachusetts,.....1 in 5.66
New Hampshire,..... 1 in 4.56	Connecticut, ...1 in 5.97
Vermont,.....1 in 4.16	Rhode Island,.....1 in 4.76

In the town of Newport, for a period of twenty-two years, there has been one death from consumption in 5.82 from all other causes.

REPORT

OF THE COMMITTEE ON SURGERY.

By W. D. Buck, M. D.

In large and populous cities the practice of medicine and surgery is, to a certain extent, distinct; surgeons are not general practitioners, nor do physicians practice surgery. Many surgeons make some one department a specialty, as the eye and ear, urinary organs, etc.; some physicians, too, pay particular attention to specific diseases; but in no section of our state is this the case. All of our surgeons are general practitioners, and all, or nearly all of our physicians practice surgery. It cannot be denied that, in every community, some one takes the lead in surgery, but a physician very rarely turns a case over to his professional brother, unless he feels wholly incompetent to treat it; he will be quite as likely to send it to some neighboring city, out of the reach of either, so that many of our most important cases are treated out of the state, consequently very many such cases cannot be embodied in a report to this society. I said the most important,—I mean the most uncommon; but such cases are not the most important. The common cases of surgery, such as all of us meet with, more or less often, and are called to treat, are the most important. Every medical man in the state sees more or less of fractures and dislocations every year, and is, I may say, obliged to treat them, and it is vastly more important that he should be able successfully to do so, than to amputate a limb or remove a tumor, and it requires more judgment and skill. One is not rendered so famous by the former as by the latter, but he is far more liable to prosecution, and may obtain notoriety in that way, if that will afford him any satisfaction or gratify his ambition. A

surgeon is seldom or never prosecuted for amputating a limb, but should he attempt to save it with all his skill, and the result be a crooked one, he must look out for meddlesome neighbors. It is safer for a surgeon to put his patient on crutches for life, than on crooked legs,—he can't kick so hard. A perfect limb, preserved in alcohol, in a glass jar, is far more harmless than an imperfect one in a boot-leg. The people believe that a surgeon can make a good limb out of almost anything, and will hold him responsible, if he be a scientific man, but, if a quack, a jury will let him off easily. A few years since, a quack, in one of our cities, pulled a uterus from a woman by main force, supposing it to be an afterbirth. The court simply ordered him to pay a small fine, but, had he been a scientific man they would have hung him. However, since the ruling of one of our ablest judges, we poor sinners have but little fear of such outrageous verdicts as were once rendered, especially if medical witnesses will tell the truth without prejudice or partiality.

As fractures are the most common, and as I think, the most important cases the surgeon meets with, I propose to say a few words in regard to the general management of these accidents, before proceeding to report cases of surgery that have occurred in my own practice, and that have been kindly furnished me by my professional brethren. I would not presume to enlighten the leading surgeons of this state upon the treatment of fractures, but I may venture to make some suggestions to younger and inexperienced members of this society, those just entering the field, and if their offices are not already full of patent splints, may save them the expense of such useless machinery. Complicated spints have made more crooked limbs than unassisted nature. Some of our journals are filled with descriptions of fracture beds and splints, so complicated that it would require an experienced engineer to adjust them, their only redeeming quality being the price; they are so expensive that few of us are able to own them. These complicated splints find their way into hospitals and students go out with their heads full of them, and can hardly be made to believe that a simple board is just as good. Since I have entered the profession, the appliances for treating fractures have

become more and more simple, but are not enough so yet. A man should go to a case of fracture with his splints in his head and not under his arm. Erichsen remarks, "I have no hesitation in saying that a surgeon of ordinary ingenuity and mechanical skill may be fully prepared to treat successfully every fracture to which he may be called, by having at hand a smooth deal plank, half an inch in thickness, and a sheet of gutta percha, undressed sole-leather or pasteboard to cut into splints as required." We do not tax our ingenuity as we ought on this subject, but take our methods from books and not from our own heads. It was the remark of an eminent professor that a thorough knowledge of anatomy and mechanical skill was all that was necessary for the sucessful treatment of fractures and dislocation. Mechanical ingenuity is certainly one of the requisites for a good surgeon; one may be ever so scientific, he may be thoroughly saturated with the literature of operative surgery, unless he has a good eye and mechanical ingenuity, he will fail to accomplish his object. His object in case of fracture is, of course, to put the bone in place and keep it there—nature will do the rest. As to the position of a fractured leg, a difference of opinion prevails among surgeons. Probably a majority are in favor of the straight; I have never adopted the flexed in a single case and know nothing about it practically; I have been well satisfied with the straight position.

A surgeon, when called to a case of fracture, should decide in the first place how he will keep the limb in place, and have his apparatus all ready before he touches it, unless to place it in a comfortable position. This pulling and tugging away at a limb, as to my certain knowledge is sometimes done, is cruel. It is a popular belief that setting a bone is a dreadful operation, and so it was once; but, if done properly, the moment a surgeon begins to adjust a limb the patient is easier. There are three indications in case of broken leg: first, to keep the limb straight; second, to preserve its proper length; third, to prevent its turning. The first is easily accomplished by placing it upon a piece of board extending from the ichium to the ancle and making it fast. The second, its tendency to shorten, is not so easily overcome.

This tendency has taxed the ingenuity of surgeons for ages. The difficulty has been to fasten anything to the leg firmly enough to keep up extension for weeks and still be comfortable to the patient. In 1849, my friend, Dr. Josiah Crosby, of Manchester, this state, made use of adhesive straps for this purpose, and succeeded so admirably in accomplishing his object that he gave the profession the benefit of his discovery by publishing his cases. This method soon came into general use, and now a surgeon would as soon think of treating a fracture without splints as without adhesive plaster. Like every other important discovery, this is claimed by several surgeons, and one, Dr. Wallace, I believe had used it before; but Dr. Crosby had no knowledge of the fact, neither had the profession generally. I doubt if half a dozen in New England ever heard of it till Dr. Crosby published his cases; so the credit of this important discovery belongs to him, and I am glad to know that the surgeons in New England are willing to acknowledge his claim. An address recently published by Dr. Bigelow, contains an allusion to the New Hampshire surgeon, and one of the professors in New York city has given him the cognomen of "Sticking-Plaster Crosby,"—a name which I think will stick to him. The method of applying straps is known to you all: the extending straps, one upon each side of the leg should, in case of fracture below the knee, extend from the seat of the injury to a point six or eight inches below the foot; the ends should be long enough to tie into a loop in the extending screw; this screw should work through an upright board, eight or ten inches long, placed at right angles with the splint and fastened to it; the straps may be secured more firmly to the leg by passing short ones obliquely across them, extending part way around the leg. Dr. Crosby's method for counter extension in fractures below the knee is admirable. The straps should extend from the knee to the junction of the upper and middle third of the femur and made fast to upright irons screwed to the edge of the splint. I use a modification of it. Instead of bars of iron, a piece of sheetiron, about three inches wide and twenty inches long, is secured by the middle portion to the under surface of the upper end of the splint; the ends are bent around and over the thigh,

and tied together; several holes should be cut through this in different portions, through which to pass the straps and make them fast. A very important part of a fracture apparatus is the padding for the splints, especially in the lower extremity. Various substances have been used, but nothing answers the purpose so well as lamb's wool, carded in sheets. I have used this for several years past and can recommend it highly; it retains its elasticity better than any other substance, and a limb may rest easily upon it for weeks. If a surgeon uses it once he will never dispense with it. The tendency a limb has to tip or roll from one side to the other may be obviated by a piece of board, three feet long, two or three inches wide and about half an inch thick, passing through sheetiron loops beneath the splint, just under the poplitens; in this position it will not be in the way of the other leg, but if attached to the foot of the splint, it is always a plague, — besides, the foot of the splint is half of the time off of the foot of the bed, and a resort must be had to chairs and bricks or pieces of wood to prop up this cross piece. This I think a great improvement. There is no necessity of bandaging a broken limb; on the contrary there are decided objections to it. It interferes with the circulation and covers the limb up out of sight, and a surgeon ought to see the naked limb often. I care nothing about measuring the length if I can see the whole limb. All that is necessary to confine the limb to the splint upon which it rests is a short splint upon each upper and lateral side, over the seat of the fracture, held in place by strips of cloth or tape, tied around the whole. The heel should not be allowed to rest upon anything, not even the wool cushion.

I will make a single suggestion in regard to counter extension, in fracture of the thigh. The best method, doubtless, is with the long splint, with a foot piece, twelve or fifteen inches long, fastened at right angles, and a silk handkerchief, well padded, passing around the groin. But when the injury is high up, the handkerchief is apt to tip the upper fragment; in that case the extending splint, should be placed on the opposite side and the handkerchief passed around the opposite groin. I have treated several cases in this way with perfect success. I have also

changed the splint several times in the course of the treatment from one side to the other; as one groin becomes irritated, place it upon the other. A broken thigh may be placed upon the same splint as a broken leg, in order to keep it straight, the extension being kept up by the long splint. It is not necessary to pay any attention to the diet in these cases; the man is not sick; all the functions are regularly performed. If a limb is kept perfectly still there will not necessarily be a callus. I have seen such cases recover without the slightest callus. The theory that nature always puts a ring around the bone and a dowel in the medullary canal, is very fine, but not always true. I have no doubt that she would for self-preservation, if she saw herself about to be harnessed to one of these complicated splints. I have treated two cases within a year where there was no sign of a callus; but it is true that, where there is much motion, as in the clavicle for instance, nature does put on splints—a sort of a starch bandage, a gutta percha ring, and sometimes she leaves it there for a long time. A surgeon may know with what success his efforts to keep a limb straight have been attended, by the defence nature throws out to keep away motion. The callus now and then forms upon one side, and gives the limb the appearance of being crooked, which it retains for a long time.

There is one accident met with quite often, but I think not always recognized, called the green stick fracture. Frank H. Hamilton has published a capital paper upon it in the New York Journal of Medicine for November, 1857. It always occurs in young persons. When called to such an accident the limb is found bent, and in attempting to adjust it, a slight crepitus may sometimes be noticed, but when once in place it has but little tendency to displace itself. I have seen three cases within a year, and Dr. Crosby informs me that he has been called to five. His cases were all the bones of the arm, both bones being broken; one of mine was the ulna and radius, and the others of the clavicle. The name indicates the nature of the injury. A green withe bent upon itself, some of the fibers upon one side will give way, partially break. Cases are also met with in young subjects where the bone is simply bent, without being fractured.

In manufacturing cities we meet with compound fractures, where the soft parts are completely torn off of one side of the arm or leg, and where the bones over-ride. Such cases cannot be extended by any apparatus in the form of a splint, because it cannot be applied. In a case that occurred in Manchester about a year since, a man had his arm broken and the soft parts torn completely off of the back of it. The fracture was oblique, the bones lapping over, and it could not be kept in place. With a common bradawl, I made a hole through the ends of the bones and passed through a silver wire, brought the ends out and twisted them together. The limb was kept perfectly in place, but the man died within a week, from other injuries received at the time, so that I cannot say with what success it might have been attended.

I have never seen but two cases of ununited fracture, one of the thigh and the other of the leg. Both were cured by the application of starch bandages, putting the patients upon crutches, making them bear all the weight possible upon the injured limb.

Within the last two years, I have seen three cases of illiac abscess, two of which I opened and the other went to Boston, and I have not seen him since. The first case, Mr. A., aged about thirty-five, complained of pain in the illiac region for several months before any swelling was noticed; meanwhile, he was treated for rheumatism. He consulted the surgeons at the Massachusetts Hospital; they detected matter, but were not inclined to meddle with it. It pointed upon the thigh, below Poupart's ligament. I opened it with a large trocar, when about two pints of matter escaped, and more or less was discharged daily for a year, then it ceased. The patient has since died of consumption. The other, Mr. P., of Derry, aged about twenty-eight, also complained of pain and was treated for rheumatism for about one year before I saw him. I opened the abscess above Poupart's ligament; it discharged for about a year, and now he is in perfect health. I mention these cases because they are not common, and to give my testimony in favor of opening abscesses early. It is not necessary to use a complicated instrument to

pump the pus out, for fear that a little atmospheric air will find admission. Suppose it does, what harm will it do? Surgeons will inject tincture of iodine, but are terribly afraid of a little air. That is all nonsense. I make it a rule to open an abscess as soon as pus can be detected and never trouble myself about air.

Within the past year I have seen a case of dislocation of the carpal bones backward, the only case that I ever saw. The accident was caused by falling from a woodpile upon the hand. Reduction was easily accomplished. Dislocations are generally easily accomplished if we go to work the right way. It requires all the force of a Jarvis' adjuster to pull a hip in place, but a little manipulation will reduce it with very little force. A surgeon can hardly pull a dislocated thumb in place, but how easily one may be pushed in after Professor Crosby's method. A dislocated elbow can be pushed much easier than it can be pulled in place.

The following cases are furnished by Dr. Thomas Sanborn, of Newport:

CASE OF BLEEDING FUNGUS.

BY THOMAS SANBORN, M. D.

Mr. W. applied for advice March, 1858, exhibiting a bleeding fungus on the outer portion of the plantar surface of the left foot, of several months' standing. At this time there was no enlargement of the inguinal glands. I advised excision. He returned in August; the fungus had been removed with caustic by a woman in Manchester, of rather an acid cognomen. About the time of its cicatrisation, the patient discovered a tumor in the groin, which continued to enlarge, in spite of iodine internally and externally, until it became as large as his fist. I removed it by excision, November 22, 1858, ligating the vessels both arteries and veins, the former being very much enlarged. We were obliged to dissect the tumor out, not being able to separate it with the handle of the knife. Within a few weeks, before the wound had quite cicatrised, another tumor of a venous color appeared near the cicatrix of the one destroyed on the foot, then another on the inside of the thigh. At this time, April 19th, about thirty of the subcutaneous glands are enlarged from the size of a pea to that of a walnut, on the limbs, in the axilla and upon various parts of the body. I removed the one on the thigh April 12th, which had assumed a malignant color, having been treated by his own and some of his friends' prescriptions. The tumor removed from the inguinal region was evidently encephaloid. His father died from the effects of scrofulous ulceration and an abscess.

CASE OF GUNSHOT WOUND.

BY THOMAS SANBORN, M. D.

Mr. H., from an adjoining town, while standing in a blacksmith's shop, facing the forge, where some men, not regarding the advice of a prudent mother's son, were engaged in melting a bullet from a rifle, received the missile in his thigh, there being, what they had not bargained for, powder in the barrel. The ragged slug carried with it pieces of cloth from the pants and shirt. It passed upward and outward, lodging under the vastus externus muscle, about three inches below the trochanter, after traveling in the limb five or six inches. In consultation with Drs. Gregg and Barton, after learning its direction with the probe without being able to feel it, we decided to cut for the ball. I made an incision five inches in length, through the integuments, fascie and muscle, over the part indicated by the probe. We found the ball below the line of its track as suggested by Dr. Gregg, which we removed and explored the wound, but found no other foreign substance. The bullet was enclosed with the four pieces of cloth, corresponding in number and shape with the pieces cut from the dress. The ball had been battered and broken with a heated rod, which fortunately for the operator did not perforate it. The pieces, eight in number, were all rolled up in the patches carried in from pants and shirt. Cold water dressings were applied and continued until the wound had nearly healed. Gave Dover's powders at night; bowels moved every other day. The patient was able to walk to the door on the eighteenth day, and suffered but little pain during recovery. When we arrived at the house, about three hours after the injury, Mr. H. was quietly reading the news. He, most of the time, superintended the application of water to the wound, being assured that rum would cause the wound to be painful, his prejudices inclining to the use of alcohol with the water. Some suppuration took place from the gunshot wound, the other healing by first intention.

I have been called upon to treat two gunshot wounds within the past year, caused by accidental discharge of a pistol. In one case the bullet entered the left leg upon the inside, just above the knee, and passed obliquely into the poplitens. The probe failed to detect it, and I did not attempt to search for it. The leg was well within two weeks, and he has not experienced the least inconvenience since. The other case received a charge of powder and wadding in the top of the foot, passing down between the metatarsal bones. I did not attempt to remove the wadding till suppuration had taken place. The leg was well within three weeks.

I am indebted to Dr. Twitchell, of Keene, for the following cases:

CASE OF ABSCESS OF THE TIBIA.

BY GEO. B. TWITCHELL, M. D.

The case of abscess occurred in a lad, about twelve years of age, residing in the town of Marlboro'. The history of the case as I learned it from his father, was that some five years since he had a typhoid fever. After recovery had ulcers upon the tibia, from the middle of the ancle, which troubled him for a length of time, during which there was, at various times, exfoliation of bone; the cicatrices were well marked. About one year after the ulcers healed, being four years before I saw him, he first began to be troubled with pain in the head of the tibia; felt mostly during the night and at some days' interval, his general health being good. With the lapse of time the pain became much more severe and more frequent; still the severe paroxysms were only felt in the night, and then so severe as to entirely prevent sleep. No treatment had given him any relief. I found the integuments about the head of the tibia discolored and thickened; slight tenderness which was more marked about two inches below, and on the inner side of the head. I diagnosed abscess of the bone, and advised trephining. I operated about ten days after, on February 22d, of the present year. After making a longitudinal incision over the seat of the greatest tenderness, I removed, with a trephine, a button of bone about one half an inch in diameter. The bone was unusually thick and vascular. Upon removing the button, what appeared to be a sack pressed up into the cavity, and upon rupturing this, about two drachms of well formed pus was discharged. I then removed. with a probe. a sack which evidently lined the whole cavity in the bone, but adhered to it only slightly. This was the pus secreting membrane. The patient has been doing quite well since; there has been no return of the pain, and had not the ulcers broken out afresh, he undoubtedly would have been quite well now. I should have said that I administered chloroform, which answered admirably. The ulcers have now nearly healed.

CASE OF LITHOTOMY IN FEMALE.

BY GEO. B. TWITCHELL, M. D.

The case of lithotomy occurred in a lady, aged sixty-three. She had been laboring under what was supposed to be chronic inflammation of the bladder; but the difficulty had so much increased within the last winter, that I was called, and upon introducing a sound, a large stone was discovered. My first thought was to dilate the urethra; but the irritation was so great that I was obliged to abandon the idea, neither did I think it safe to subject her to delay or the irritation that would necessarily be attendant upon the operation of crushing and removing the stone; I therefore determined to remove it by cutting. Accordingly upon the eighteenth of April, two weeks ago, after fully etherizing the patient, an assistant pulling up the mons venus, I passed a director into the bladder through the urethra, and, with a straight probe-pointed bistoury, incised the urethra upward toward the symphasis pubis, sufficient to pass my finger into the bladder. I then

passed a small pair of lithotomy forceps into the bladder and seized the stone, but finding it to large to remove whole, I broke it and removed it in three pieces. The stone was irregular in form, somewhat conical, having a broad tubercle near one extremity, which was attached to the principal stone by a narrow neck. Its longest diameter was one inch and five eighths; its shortest through the tubercle, one inch and one sixteenth; its weight was one hundred and fifty-eight grains. The patient has been progressing finely; she is now, May 3d, about the house; the wound has nearly cicatrised; she retains her urine, and has perfect control over the bladder and its contents.

Dr. Twitchell speaks of using chloroform in one case and ether in the other. Is not ether on the whole the best? Chloroform has slain its hundreds, and not a single death to my knowledge has sulphuric ether produced. Chloroform, too, has proved fatal in the hands of some of our best surgeons. Ether is perfectly safe and there are no contra-indications to its use, that I know of. I took it at the rate of three and one half pounds per day for three weeks, for inflammatory rheumatism, involving the heart. This is a great story, but nevertheless true.

I am indebted to Dr. Josiah Crosby for the following cases:

AMPUTATION OF SHOULDER JOINT.

BY JOSIAH CROSBY, M. D.

Within the last fourteen years I have amputated the shoulder joint four times, and removed the head of the humerus once. The first case was gunshot wound; the second and third railroad accidents; in the fourth the arm was caught in the gearing of a flouring mill. In all these cases except the last, the bones were crushed to the head; in the last, the one caught in the mill, the bone was uninjured high up, but the brachial artery was completely severed high up. The integuments in three of the cases were so destroyed that it was impossible to get clear cut edges for dressing. In all of the operations the head of the bone was disarticulated and removed from its socket first, then the artery was easily reached and secured. The soft parts were then trimmed with as much economy as possible, to give covering to the wound. The first three cases made a good recovery. In the fourth case, an attempt was made to save the arm, but, on the second day there was manifestly such a want of vitality that the operation was performed, but with no advantage to the patient who died on the fourth day from the injury.

I would remark here that I amputated at the shoulder joint in 1855, after the method proposed by Dr. Crosby, i. e., removing the head of the bone, and then ligating the artery before dividing the soft parts.

REMOVAL OF HEAD OF HUMERUS.

BY JOSIAH CROSBY, M. D.

The case in which the head of the humerus was removed was that of a young married lady, of great refinement and intelligence, one of the most interesting in our city. Sometime in 1852, she began to complain of pain in the left shoulder joint. It was considered rheumatism at first, and subsequently neuralgia. Notwithstanding the use of a variety of remedies, the pain continued and constantly increased, until, in the autumn of 1853, it began to discharge pus from two or three openings in the axilla, and one above the tendons of the pectoralis muscle. The discharge continued and increased till April, 1854.

At this time a consultation was had, and it was the unanimous opinion of the gentlemen present, that the removal of the head of the humerus was the only thing that could give relief. On the twentieth of April, 1854, I performed the operation, assisted by Professors Kimball and Crosby. The operation was performed in the usual way, with the loss of but little blood, using the chain saw to remove the head of the bone. Mrs. C. was highly scrofulous; had lost a sister a few years before with consumption. At the time of the operation her health was very much impaired; she had a constant cough without expectoration, great emaciation, night sweats, and but little appetite. For a few first dressings everything looked well, as if most of the wound would heal by the first intention; but it soon began to break away, and for months it seemed as if it never would heal. Her general health improved, and ultimately the wound healed, excepting two or three small openings, which continued to discharge a small quantity of pus as long as she lived. For more than three years she enjoyed very good health, regained her usual amount of flesh, and enjoyed all the comforts of life that affluence and an affectionate husband could furnish. There was some motion in the joint, but not extensive; the forearm was very useful.

In 1857, her health declined, her cough returned, and she passed the winter of 1857–8 at Cuba, with little or no benefit to her health, and she continued to fail until her death, in February, 1859. Her life was extended at least five years by the operation.

It may be asked why it did not entirely heal. I can only say that it is possible that the articulating surface of the scapula had become diseased before the operation, although it appeared perfectly sound at the time.

PERFORATION OF THE FEMUR.

BY JOSIAH CROSBY, M. D.

Mr. H., aged thirty-five, when ten years old, had necrosis of the lower end of the femur, near the external condyle. During the progress of the disease he fell and fractured the bone at the place affected. Both recovered together, and he had apparantly a good limb, until March, 1857, when he was attacked with pain in the seat of the old disease. The pain intermitted, so that for days he would be perfectly free from it, when it would return, increasing in severity and duration, until he was obliged to relinquish his business (a machinist) and devote himself entirely to the care of his limb. The

pain became so severe that he was obliged to resort to large quantities of morphine and ether to get any rest. His flesh wasted; the whole limb was much smaller than the other; no swelling and but little tenderness, and that only when considerable pressure was made on the seat of the pain. A great variety of treatment was resorted to with no permanent benefit, and with very little temporary relief. Several surgeons were consulted, but all to no purpose; the patient constantly grew worse until he and his friends were fearful that he might lose limb or his life.

I visited him on the fourteenth of January, 1858, and proposed perforation of the bone, Dr. Hubbard, of this city, and Dr. Paige, of Candia, his attending physician, being present. The operation was performed the same day. An incision one inch long was made on the outside of the leg, about three inches above the articulating surface of the external condyle, and, at the suggestion of my friend Dr. Buck, the perforation was made nearly through the cancellated structure, with a three eighths of an inch gouge bit, placed in a common bit-stock. The instrument perforated the bone with perfect ease in a half a minute. The bone appeared perfectly healthy, and no pus appeared. The wound was kept open by lint to prevent immediate union. The pain ceased a few days after the operation was performed, and the patient's appetite soon returning, he rapidly recovered, and is now enjoying good health with apparently a sound limb.

This case is similar to those described as neuralgia of the bone. A case is reported in the February number of the Lancet, where Mr. Stanley perforated the internal cuneiform of the foot; only a drop or two of pus escaped.

CASES OF STRANGULATED HERNIA.

BY JOSIAH CROSBY, M. D.

There is perhaps no disease of which so many persons die, over which the surgeon has so much control as strangulated hernia. Very few persons would lose their lives by it if the operation was performed sufficiently early. Too much fear of an operation is generally entertained by the attending physician, and sometimes great opposition is made to it by the patient and his friends, all tending to dangerous delay. I have never lost but one patient from hernia where I have had the management of the case from the beginning, but have lost several where I have operated for others. I think all surgeons can say as Mr. Key did, that he had often regretted performing the operations too late, but never too early. There is no time so late that the patient should not have the only chance for life that an operation gives, except he be in *articulo mortis*.

My attention has been drawn to this subject by the fact that since the last annual meeting of this society, I have operated three times, and all the cases have proved fatal from delay in the operation. Two of the cases were females and one male — all very small protrusion and old cases, where there had been, probably, a small portion of omentum permanently protruded for years, and occasionally a small portion of intestine would be forced down with it. Such was the case at the time of these operations. In neither of

the cases was there two inches of intestine strangulated. These cases would undoubtedly have been saved by an early operation. It is very difficult to say how much time may safely be consumed in making efforts at reduction by taxis; but one thing is very certain, that severe efforts long continued or frequently repeated are far worse and more dangerous than it would be to use the other common remedies, warm bath, cold or warm local applications, ether, etc., and not resort to taxis at all.

The case to which I referred as the only one that I ever lost, was a very singular one. In 1832, Mr. K., was attacked with the ordinary symptoms of inflammation of the bowels, severe pain, vomiting, etc., which continued several days and terminated fatally. A post mortem examination showed the disease to have been hernia. There was no tumor in the inguinal region; there had never been a testicle on that side. The intestine passed through the internal ring and then upward between the internal and external oblique muscles, and was not discovered till death.

Dr. Crosby's remarks on taxis suggest to me a method that I have not seen described in books, but one which I always adopt. A person who has had hernia for years, and is constantly in the habit of reducing it, understands the usual method of taxis better than we do, and if he cannot manipulate the bowel into place, ten chances to one if the surgeon can. I place the patient's hips higher than his head, by raising the foot of the bedstead a foot or more, flex the thighs upon the body, then grasp the integuments and subcutaneous tissue, as deeply as possible, each side of the neck of the tumor, with the thumb and fingers of each hand, lift the integuments up and give a lateral sawing motion, try to enlarge the opening, but do not touch the tumor. I have reduced hernia by this method, when the attempt had been made for hours at reduction in the ordinary way.

CASES OF PROLAPSUS ANI.

BY JOSIAH CROSBY, M. D.

A little girl, six years of age, had from infancy been troubled with prolapsus ani, the disease becoming more and more troublesome as she advanced in age, and at length became very alarming from the hemorrhage that followed every operation of the bowels. When I first saw her the protrusion was very large and made up of a mass of varicose veins. Immediately after the morning evacuation, ether was administered and the tumor drawn down, and the whole included in four ligatures and returned into the rectum. No pain or inflammation followed the operation, the ligatures came away in a few days, and the patient was permanently cured.

Mr. D., aged 28, has from early life been troubled with what he called

piles. The disease has greatly increased within the last four years; every movement of the bowels produced protrusion, pain and sometimes hemorrhage. His suffering was so great that he could not leave home for a day. He was obliged to use a cold water injection, in the evening just before going to bed to produce an evacuation, and then retire immediately as the only relief from extreme pain and bleeding. He became pale and emaciated, and life was a burden to him. The mucous membrane on examination was found highly congested and in a granular state. Ether was administered, and with the aid of Dr. Buck, the whole of the protruded portion was included in two ligatures, and returned into the rectum. Very severe pain followed the operation for three or four days. There was very little inflammation, and the pain was attributed to a portion of common integument which was included in the ligatures. The recovery was rapid and he is now in perfect health.

CASES OF VARICOCELE.

BY JOSIAH CROSBY, M. D.

Mr. B. and Mr. D., one eighteen and the other twenty-five, had been troubled with varicocele for several years. One of them had been treated for hernia; both were painful, and very little relief was obtained from the suspensory bandage. Ricord's subcutaneous operation was performed on both with good success. Very little pain or inflammation followed the operation. The ligature of one was removed on the fourth day and the other in the early part of the third. In both cases the ligatures were tied over a piece of chamois leather. The operation is easily performed and I think quite safe.

I have operated four times for varicocele; two of the case were successful and the others not quite. I directed one of them to wear a truss over the spermatic vessels as they pass over the pubis, and that effected a cure. I mention these cases to add my testimony to that of Dr. Crosby as to the safety of the operation.

I am indebted to Dr. Hill, of Dover, for the following case:

CASE OF ACCIDENT TO THE CAROTID.

BY LEVI G. HILL, M. D.

W. N. R., age fourteen, was on the eighteenth day of October, 1858, while at play with other boys in the entry of our high school house, thrown upon a hat and coat pin with such violence as to carry away the pin, split the wood to which it was screwed, and both boy and pin went floating across the entry. The pin entered just below and behind the left ear and passed downward and forward till it reached and wounded the trachea. The pin was immediately withdrawn, but before the teacher had reached him he had bled largely and fainted. A finger was placed over the wound and he was conveyed home. At the time of our first visit there was no

hemorrhage, and we simply applied a strip of adhesive plaster, a compress and bandage. He went along very well for just two weeks, when hemorrhage came on, and notwithstanding the applications of cold, astringents, compresses, etc., blood would escape at irregular intervals rapidly and largely. It sometimes bled so freely as to threaten life. Blood filled the parts around the wound, and with the extravasation and some inflammation the whole side of the neck and face was enormously swollen, the head turned far to the right, left eye distorted, in fact he was woefully disfigured. The frequent and large bleedings, nothwithstanding the means used, suggested the propriety of tying the carotid; but feeble constitution, bad general health, bloody expectoration, doubt about recovery under any circumstances, and unwillingness on the part of parents, determined us not to attempt the operation, but trust to nature and such means or aids as we might be able to give. Ulceration took place to some extent, i. e., the wound, at first only three or four lines in diameter, became more than an inch. After the lapse of about two weeks and the ulceration, we introduced pledgets of lint saturated with muriated tincture of iron, which seemed to have a good effect; and after a few days and a few applications of the iron, the hemorrhage ceased altogether. Since that time he has been gradually recovering and now, notwithstanding the head is inclined to the right side, and some cough and occasionally a little bloody expectoration with a sensation, as he describes it, "as if it was going to bleed," he is abroad, has been in school, and promises to be about as before the accident.

ORATION:

ON THE DUTIES OF PHYSICIANS.

BY WILLIAM LAIGHTON, M. D.

THE duties of the physician, although confined to the human system, extend from the study of nature's perfect laws, through man's varied and uncertain condition down to the imperfect laws of man's own making; and however vast may be human intellect, the bounds of the physician's sphere are not yet reached. In our medical societies, a cheering influence is given by brilliant minds, and wisdom holds us fast to the facts of experience, truth and reason, promptly rejecting pretension and delusion, demanding an observance of our duties and responsibilities to the public, while it yet has to plead with that public, that nature's laws may enlighten its conventional life. And, however much we feel our own weakness in these associations, we feel also protected by the enlarged judgment and combined charity of the exalted mind around us.

The study of the human system as presented in the whole of the physician's labor, is co-extensive with all causes and effects which can any way influence that system, or any way alter its condition. It is not alone the physical structure, but the mental in relation to the physical, and both mental and physical in relation to the modifying circumstances of life, and in relation to a supreme law of nature, that is always acting upon us with its exact legitimate force, however limited may be our knowledge of it; and so closely is moral conduct connected with physical condition, the civil law regulating its course should also be embraced in his studies. Man's position in the universe as an intelligent being, is very much as he has conception of that supreme law,

and understands that the grade of his existence and higher destinies depend upon his obeying it.

His ability and opportunity to acquire a knowledge of this law depends so much upon the condition of his own organism and its functions, together with conventional regulations, which are favorable to their highest action and most healthy preservation, that the importance of these conditions is about equal to his intellectual and moral position, and places the duties of our profession in the highest grade of man's pursuits.

The formation of a large part of the civic law, if not the whole statute, should be under the direction of a medical department, and rendered only as is consistent with the laws of health. The organism and functional action of a nation's people is the measure of that nation's mind and power. These conditions are subject to the sanatory discipline imposed by state legislation, and that legislation should be based upon the laws of life and health, and matured by the study of man in all his relations and conditions of life; keeping in view morality and liberty as the first objects of their labors, securing, to the greatest possible extent, health and reason as the surest means of obtaining them. And for the weak and erring, a class which certainly has just demands upon our sympathies, protection and favor should be granted, with a course of treatment adapted to the nature of their weakness, saving them from dens of poison and imposition, restoring health and imparting to them a better knowledge of themselves and their duties.

Upon this study of man, which is the proper study of the physician, is based about all that really profits the human family and that requires legislative action. Within your duties then are involved the scope of the human mind, the dignity of the human character, and the brightness of the nation's glory; for the high grade of all these virtues does depend upon that healthy tone of the people's mind, which is sustained only by observing the laws of health. Your duties, obligations and influences in society are the most important, individually and nationally, of all which can be assumed in any sphere, relative to the position and power of the people; and there is no movement made in society, from the humblest cottage school to our congress hall, that does not

involve the duties of our profession and should be governed by that unalterable law of nature, relative to body and mind, which is the groundwork of the medical profession, and without the observance of which no human action can approximate to perfection, as it could with it.

Sympathy, kindness and forbearance, too, are demanded of the physician, in the most sacred tones, for the sad manifestations of the human character, weakness, sin and wretchedness, arising from an unbalanced functional action, diseased condition or peculiar organization,—conditions of the human system which are frequently made worse by usages, permitted by the general ignorance of their true causes, and usages which would not be permitted in this christian age, were the true causes better understood. That character, which would coolly overreach his neighbor in any transaction and take advantage of his weakness, should be despised instead of being lauded for shrewdness; but honor to the man that sympathises and forbears with his fellow man, who, from indigestion, sleeplessness or over-excitement, has become irritable, morose, uncongenial, sullen, melancholly or even irascible, and extends to him that kindness which his condition demands, and which is indicated by a knowledge of functional derangement.

The duties of improving society, of protecting the weak and unfortunate, and of equalizing the social power and condition of the human family, should be more attended to by the physician. Every statute should be made with reference to health, for the health of the people is the measure of the wealth and power of the nation. The success of every nation depends upon this power in connection with a strong moral force and political economy. But the last two depend upon the first; for there is no strong and efficient moral force without health, and the political economy without it would be mere imbecility and pauperism—not that men need laws to compel personal discipline favorable to life, but that they do need light to discover local causes and public habits which engender disease. A healthy tone of each mind is sufficient law of itself, but that tone may fall from some local cause, and remain inefficient for an indefinite time, without

even the sufferer knowing it. If causes and effects could be better traced, it might be discovered that the fall of every empire is generated within its own domain, and to consist of physical derangement and moral turpitude, proportionate to the purity of the atmosphere, food and laws of the people.

The physician is nature's student. Her law is the orbit of his duty, and, of all men, he should be the most humble inquirer for her dictation in everything, and of every subject upon which his mind is exercised. The high position to be nature's advocate, to be the mediation between her unalterable demands and the age yet ignorant of the necessity of obeying them, or fall far below that dignity and greatness which it was designed to enjoy, is a position worthy of the most sacred devotion and of the loftiest intellect; and such is the character and action of mind upon mind, and the physician's relation with the community, that a constant care is necessary or he is drawn off by those around him, from his solemn charge in nature's cause. The rivalship and opposition of contending theories may throw him from the single tract of nature's travel, and as he is thus liable to be led astray, to flounder about in various experimental practices of the day, or to be pinioned by some specialty, how important it is that he, with his professional cotemporaries, fix upon a line of action commensurate with the importance of their duties. In fixing upon this line of action a sacred regard should be paid to the experience of past ages, and to the wisdom of the multitude in council. No new theory or practice should be admitted into the field until approved by the majority of the wisest of the profession, and then only to select from it what may be found valuable and consistent with the laws of health, without reference to the source from whence it came; and any one practicing or pretending to practice a system not sustained by experience and impartial judgment, does wrong, and should be repudiated. A regular and established system of medicine and medical authority should be so pure as to stand sufficiently high in public opinion, and sufficiently prominent in legislation to be the arbiter of what should be or should not be permitted in any practice or action touching the health of the people.

The hard and unyielding path of truth is ours. No glittering fancy or poetic rambles should be allowed to mislead us, but facts and reflection must be our guides and our travel. In every department of life the physician's guiding influence should be felt. In the legislative assemblies he should perceive that every art, restricting or guiding human tastes, propensities or action, have a specific and favorable bearing upon constitution and upon character. In the active pursuits of life, it is right for the people to go on cheerfully and even thoughtlessly, for the most of the time, as to great laws and observances bounding the perfection of physical and intellectual life; but upon the outer wall, and outside of all conventionalities, there should be sentinels, faithful and watchful, to catch the spirit of that law, the observance of which is wisdom and protection to the whole citadel of life. On the lookout for the conditions of the most perfect functional action and existence of man, should stand the physician, receiving instruction from nature's intonation on the one hand, and detecting violations and error on the other, humbly looking for light and guidance, studying man as he is, accounting as far as possible for his sufferings and disordered condition; then as one who has looked to see and studied to know, as one who has stood aloft to watch life's errors and to receive from nature the chart of right, he should, in the ocean of human life, point out the shoals on which so many are shipwrecked.

All the works of man are directly or indirectly related to his own existence, and every item of that work elevates or depresses his condition as it is or is not consistent with the laws of his being, and whatever the subject of his action may be, there is but one right way to use it, but one proper result to be obtained, and all variation from that right is perishable or injurious. Ignorance or good intention will not save the consequences of error. Whatever affects man at all, affects him in health and in every volition of soul. And everything affects him; every breeze of air, and every shade of light; every odour and every taste; every sound and every sight; and whatever affects man's health comes within the sphere of our profession. Whatever affects man's health, affects his security as a citizen; and whatever affects one's secu-

rity, affects the obligations and increases the burdens of all. The acquiring a knowledge of that law which sustains life in the most perfect condition, and to carefully interweave its principle into all public measures, is the groundwork for a powerful and permanent republic, and, in all probability, the rise and fall of every nation before us has been in exact proportion with the adoption of these principles, whether they were adopted by accident or design. The rise and fall of empires, the prevalence of war or peace, the prosperity or adversity of a people, the force and tone of society, and even the kindness and courtesy of friends, depend upon a law in nature as much as do the rise and fall of the tide, and this law relates to the health of the human family. A knowledge of this law is the chart of human goodness, and is an intellectual power by which we can guide our faculties to the higher objects of life, and study our future destiny.

Health, and everything relating to it, are means to the one great end — the supremacy of the soul; the high and noble bearing and just dealing between human beings. However independent this principle of the mind may exist of the body, or however immortal its character, its manifestations in social life do depend upon the condition of health; and this condition depends much upon the social influences being based upon the sanitary laws of the human constitution. The man of God instructs of the existence of the immortal soul, and its relations to the supreme Father; and every sound minded person feels, knows, is convinced that such relations do exist, and when in great distress, his own soul calls spontaneously upon that supreme being, however imperfectly the person may comprehend or speak of him at other times. The success of this teaching depends much upon the condition and the temperament of society. This condition or temperament can not be fixed always in a single case or a single generation; but with proper care in what relates to the health, burdens, contentment and prosperity of the people, all of which are directly or indirectly dependent upon the observance of the laws of health, and should be under the direction of the medical department, great progress can be made; and this progress is the real improvement in society. It is the production of that healthy functional action

which enables the mind to ascend and to clearly comprehend the great law of its being, which measures out to it results according to its obedience to that law. The observance of the Sabbath is one of the greatest means to this end, and, of all men, the physician should advocate the observance of this day of rest and reflection as the most salutary enjoyed by man, for creating and preserving that healthy condition of body and mind; and so certain are its effects, as if hidden treasures were overflowing its holy precincts, we have but to consent to receive in order to be enriched with its purifying influence. And so with many laws and agents of nature upon the mind, we must submit to them for their ever proving goodness, as presages to the right, whether we understand them or not.

Nations have risen, flourished for a season, then declined either by disease or the iron hand of despotism. This cannot be consistent with divine will or any principle of nature otherwise than as the penalty of violating a law of the universe which is as unalterable as the law of gravitation, and human prosperity could no more be the result of such violation, than two and two could be made equal to five, but is the consequence of a government inconsistent with the law of human progress, and probably would not have been the case had their statutes been so framed that every public movement tended to the most healthy condition of the people, giving strong and healthy character to body and mind, self respect and salutary employment. Stagnant and sometimes exciting atmospheres of crowded locations with their tippling connections, enervate and degenerate the physical power; then follows mental weakness; then again follows oppression from classes who mistake this weakness and its consequences in their less favored brothers for lawlessness, or the unfortunates themselves, from their weakness and moral blindness, misunderstanding the causes of the different social positions, rebel, and frequently against those who would be the best reformers of the evil, and try to be; but not understanding the root of the evil, and not being able to trace its growth into the chief elements of good society, which is good health, they do not succeed.

A well balanced physical system tends to peace and content-

ment; excessive fatigue and bad air, to uneasiness and irritation. The pure atmosphere of heaven and plain substantial food, with well regulated labor, would do more to prevent wickedness and rioting than all the model police that Paris can boast of. A sanatory or medical police to arrest the causes of weakness and wickedness, and a medical jury, to decide whether or not human nature has been properly treated, and to save the careful surgeon who feeling his dependence upon her powers, and waiting for her indications or compulsatively acting to her dying signal, from the rash judgment of a meddlesome populace, or from a civil tribunal which restricts the exhibition of the laws of nature's recuperative action to the convenient rules of a human court,—such a medical jury would secure the benefits of scientific surgery to the people, and adorn our temples of justice.

How wide, then, is the field of your labor! For whatever is involved in the health sustaining element of man is yours! Whatever beautifies his image, adorns his character or opens his mind to the more heavenly teachings, are fit subjects for your investigation.

Formed as is the human character, step by step, modeled and trained by its surroundings, manifesting in its progress the effect of previous impression, renders the importance of spreading the right public influence in its course, of the highest magnitude; and keeping in view the power of the mind over the body, the habits, education and amusement of the people should, by public favor and influence, be inclined to the cultivation of self reliance, moral force, and to all the higher aspirations of human beings, the tendencies of which are to a high toned course in conduct, quiet, refined, pure and health sustaining. The sentiments of songs and tones of their music have their specific effect, and even the surrounding verdure, the trees, the fields, all may be made the means of influencing the health of body and mind.

Beyond the limits of our present knowledge, there are in action powers or attributes of nature yet undiscovered by man, principles involving the laws of health, the more perfect organic action, and presenting a higher life, together with corresponding intellectual power and compass, and it is only as we approximate to a knowl-

edge of these principles that any advancement is made. In our efforts to make such advancement, we are in danger of adopting, especially in private action, a limited and erroneous mode of reasoning, peculiar to our own habits of thinking and peculiar to our own organization, conveniencies and self opinion, instead of the one true course. Man's, even the philosopher's presumption and skepticism are among the greatest hindrances to advancement, and a general delusion of the people by which mere conventionalities pass for the substance of important principles, are together about sufficient to wall out all true knowledge. All real improvement relates to man, to his being, to his capacity, to his destiny, involving always personal health, ability and action; and all these relate to our profession, and upon us the labor of reform falls heavily. Fact after fact must be collected in their most simple forms, and, with their relative circumstances, should be, in their natural character, kept in the mind of the physician with care, that no one's theory alters them, and that no one's host mutilates them, and these facts carefully consulted as indices to the yet unknown paths in nature's plan. To these yet unknown forces acting upon our systems, which from our yet unenlightened condition of them, we continually are crossing the path of straight forward progress, and to the consequences many of the incongruities and diseases of the human family may be attributed; and many of the phenomena, both physical and mental, which are occasionally twinkling before the public mind's eye, will become plain and understood only with a better knowledge of nature's attributes.

Science is the physician's field and not faith, except in what science has taught him to believe. Truth, and truth adhered to, must be his motto. "What is the law?" must be his question; and humbly to seek and fulfil that law must be his work. The principles involved in this work are the controlling forces of every human life, and they should be applied, not only in the sick room and health regulations, but in the making of every law in every community.

How childish yet man lives within what he knows, and freely uses all within his reach for his gratification, without asking what

law furnishes them or on what law their continuance depends; and when the first privation comes, he is as the mariner without chart or compass. Storms of public commotion terminating in war, famine and disease, enfeebling empires for centuries to follow, and repelling human knowledge almost back to a beginning, —these are the consequences of such ignorance, as much as the burning of a child would be, who, ignorant of the destructive nature of fire, might embrace it. Until the people realize to an extent sufficient to influence public opinion, that the perfection of the mind in a general sense, and always in its manifestations, depends upon the condition of the body, and that the general course of the community depends upon the controlling influence of conventional life being kept in harmony with the laws of health, until all this is realized, these errors and retrograde movements will occur. And that they may the sooner realize this, we, as nature's advocates, should demand it; represent her in public councils, and exhibit her requirements in the making of every public law. To do this, and with it to elevate the medical profession to its proper position, as it relates to human life and ability, national condition and power, we must act as a body, and send medical men into our state legislatures, not merely as politicians, but as defenders of that constitution on which human progress depends, and on which all other constitutions must be founded or perish.

Reason based upon facts is the only improving agent attached to the system of man, and it is only as this agent is exercised that man improves; and, so far as conventional influences hush the voice of reason, so far as civil law prevents its free action, so far as sectarian creeds intimidate its exercise and expression, just so far is shackled man's greatest power to elevation and to truth. A knowledge of facts relating to the human system, must ever be the basis of reasoning for human improvement. The first and paramount object of legislation should be human protection and human improvement, and the first and paramount qualification of every law-maker should be a knowledge of the law of the human system; and the civil law of any community should be but the natural law of human beings

carried out in forms suited to pursuits and condition involving the energies of the people for whose government it is made.

The laws of health, too, are the laws of peace and happiness. Their better culture would prevent war and save the lives of millions to populate and to cultivate the unbounded, unimproved and beautiful territories of our earth, giving sustenance to all, and perpetuating the improvement of the human family. Their better culture would save thousands of cases of debility and suffering, would save from hospitals, almshouses, and penitentiaries, millions to enjoy that high-toned moral liberty which is the precious fruit of good health and good government.

STATEMENT

OF THE COMMITTEE ON REGISTRATION.

YOUR committee charged with the duty of soliciting from the legislature the enactment of an efficient registration law, submit the following sketch of the progress and result of that effort:

The committee, after full consultation and a comparison of similar enactments of other states, agreed upon the provisions of a bill for the registration of births, marriages and deaths, copied, with some essential modifications from a statute in successful operation in the state of Rhode Island. This bill, which, marred by unfortunate omissions hereafter to be noticed, was subsequently enacted into a law, may be thought, on first view, to demand too much, but gentlemen most familiar with statistical and sanitary investigations, find important uses for all the facts required by its provisions,

Heretofore it has been impossible in this state to obtain full reports of births and deaths, the chief labor of which was sought from physicians. As this is a fundamental step in any registration movement, the committee felt obliged to seek some other agency for the required information, and they gladly received from a member of the legislature, who, though not of the profession, has bestowed much attention upon the subject, a suggestion which promises better results. It was this, namely: that the requisite information respecting births and deaths, can, with the least inconvenience and the greatest certainty be obtained through the selectmen and assessors of the several towns and cities. The suggestion was approved, and the law proposed and now in force requires these officers annually, in the month of April, while taking

the inventory, to ascertain by inquiry of each family in their several townships, the births and deaths that have occurred during the preceding year, and record the same with the specified facts relating thereto, agreeably to blank forms furnished them by the Secretary of State. This mode of collecting facts for registration is, so far as the knowledge of the committee extends, untried; but as these offices are generally filled by persons selected for intelligence and probity, who act under the sanction of an oath to obey the laws of the state, it would appear that an agency better adapted to the purpose can hardly be desired.

If the returns for the year just closed are found to a large extent, defective or wanting, the failure should not, in this instance, be attributed to unwillingness to act on the part of those charged with the new duties, but to the fact that they were unacquainted with the provisions, indeed, in many cases, with the existence of the present registration law. The selectmen, it is well known, are generally guided in their official labors by the suggestions of a directory called "Town Officer," which, previous to the last edition published this year, of course furnished no allusion to the law under consideration; but now, as that work contains full directions upon the subject, this difficulty no longer exists. Unfortunately, however, this last edition is less clear than it should have been, as it retains most of the provisions of former registration laws, which were repealed by the act of 1858.

In the commencing operations of this or any other plan, we cannot anticipate that all the facts respecting births and deaths will be obtained with entire accuracy; but when, as has been the uniform experience elsewhere, more intimate acquaintance with the important results sought has awakened increased interest in the subject, these town officers will, it is believed, have no difficulty in collecting all the desired information, with the exception of the diseases or causes of death. These can be correctly furnished by medical practitioners only, and the law accordingly provides that physicians throughout the state shall annually, between the first and fifteenth days of April, report to the selectmen the names and causes of death of those dying under their care during the preceding year, the state furnishing them suitable blanks for

the purpose. This trifling but necessary labor, every physician at all familiar with the great value of the results obtainable by registration, will gladly render.

All who have read the registration enactment of last year will have noticed an important defect, namely: the absence of any provision for the classification and publication of the registration returns. This is not the fault of your committee. The bill prepared and furnished by them contained provisions for the publication of annual reports, and for compensating, to some extent, the agents employed to obtain the requisite facts; but these the select committee, to whom the bill was referred in the House of Representatives, thought best to strike out, fearing in the existing feeling of that body, that the bill would not pass if it involved an expenditure of state funds;* and this omission the select committee considered the less objectionable as the returns were to be made to the Secretary of State, just before the meeting of the legislature of this year, when if they were sufficiently perfect to warrant it, that body would doubtless order the desired publication. In striking out the section above mentioned, the law was rendered still farther defective, for while the numbering of the sections was changed, the references to subjects in the several sections were retained as in the original bill, an error which sharp-eyed legislation should not have permitted to pass.

Upon the subject of compensation for services rendered under this law, your committee were not unanimous, but it was decided by a majority that, as the penalties for neglect of duty were heavy, the bill should provide remuneration for its agents. A provision to that effect was accordingly inserted, but was struck out, as already stated, by the select committee of the House; and such provision would appear unnecessary with perhaps a single exception, the selectmen, assessors and town clerks, being town officers, and accustomed to charge at established rates for all official labors, and would thus remunerate themselves for services under this act. The duties imposed by it upon physicians are

* Indeed, while the bill reported by the select committee was before the House, an amendment was offered providing for publication, and was at once voted down; but this may not have been a fair test, for the bill as reported by the select committee was doubtless considered by the House perfect, so not open to amendment.

very slight, and will no doubt be cheerfully rendered without fees; but persons performing the marriage ceremony are required to obtain and record numerous replies, and it may be expedient to so amend the law as to provide for them a suitable compensation, or the duties of clerks of cities and towns may be so modified as to require them to obtain of parties about to be married, the specified facts, and fill the blanks prepared for the purpose, which may thus be made a part of the legal certificate of intention.

The several blank forms required by the statute for registration and returns were promptly prepared by the Secretary of State, and were early printed and distributed in suitable numbers to the towns and cities. Copies of these are herewith furnished. It should be added that, when fully carried out, the plan will require a portion of the ruled sheets to be bound in volumes* and forwarded to the towns for permanent records, loose sheets being also supplied for the registration of births and deaths by the selectmen, and for the returns required from the clerks to the Secretary of State. But owing to the disinclination of the last legislature to incur expense, no appropriation was asked for the bound volumes, and without these the law may be carried into full operation, although every one will perceive their great importance as permanent town records.

We have, then, among our statutes an efficient registration enactment, with machinery well adapted for successful operation throughout the state, in the registration of births, marriages and deaths, and for the transmission of those records to the central office of the Secretary of State. An important feature already specified is wanting, viz: a provision for the annual digest and publication of these returns, without which the law must prove an entire failure. It is therefore recommended that the society appoint a committee of three Fellows, to prepare and urge to adoption by the legislature, amendments providing for this defect in the existing law, the correction of the verbal errors above mentioned, and making provision, if judged best, to supply bound volumes for permanent records in the towns, and for compensat-

*In printing for binding, the ruling of the sheets will be separated in the middle to form the center margin, each record when made extending over two pages.

ing those who are required to furnish marriage returns, or what perhaps would be better, transferring the labor of collecting these returns from ministers and justices to the clerks of cities and towns, as has been lately done in Massachusetts. One other slight addition would greatly conduce to the success of onr measure, which is rendered the more necessary by the obscurity of the directions in the late edition of the Town Officer, from intermingling the provisions of old and repealed registration laws with those of the act under consideration. It is the custom in some other states to require the Secretary, when distributing the blank forms to the several towns, to furnish annually to the clerks printed circulars, stating briefly the objects of registration, and explaining the duties of the parties concerned in carrying it into effect. The committee accordingly recommend the insertion of a clause to this effect in the section of our registration act which defines the duties of the Secretary of State.

The great value of registration and sanitary investigations is becoming very generally recognized by men of science, political economists, statesmen and philanthropists, no less than by the profession with which we are associated. In an excellent report on the laws of registration of births, marriages and deaths, presented by Dr. Jarvis, of Massachusetts, at a late meeting of the American Medical Association, and published in the last volume of their transactions, it is announced that eight states have registration enactments in successful operation, without iucluding Maine, Michigan, New York and our own state, in all of which measures for this purpose have been commenced in earnest. In Massachusetts registration reports have been published annually since 1843, with constantly increasing fullness and interest, and Dr. Jarvis states that the law is there "growing more and more into popular favor, and commanding a more thorough obedience. The people at large, and the general and local authorities are becoming more desirous of its execution, and more interested in its principles and results." This is true also in Rhode Island, Kentucky and other states where the subject of registration has been for a considerable period before the people, while abroad, in England, and with the most enlightened nations upon the conti-

nent, registration has attained far higher perfection, furnishing data of incalculable value to the people.

With these facts before us, and with the earnest and often repeated recommendation of the American Medical Association, of associations for the advancement of science, and of the most distinguished statisticians everywhere, for the establishment of efficient registration laws in all the states, shall we of New Hampshire lag behind? If we would not we must ourselves become more engaged in the enterprise; we must take measures to inform the public mind upon the subject, use our influence to interest members of the legislature in its favor, induce the periodical press to commend it, and "publicly and privately, at home and everywhere," exert ourselves unceasingly until the work shall be accomplished. Appropriately, necessarily was this noble movement commenced by our profession, and if the efforts now in progress for its completion fail, it will be because the Fellows of this society do not desire their success.

Believing, on the contrary that this association will not admit even the possibility of failure in a measure so peculiarly its own, your committee close with the subjoined resolution, which is offered for your consideration and action:

Resolved, That, in the opinion of this meeting, an efficient system of registration for New Hampshire, to co-operate with similar investigations in other states, is a NECESSITY of the times, and, recognizing it as a special duty of our profession, we hold ourselves obligated, in associated action here and individually, to exert our influence and to labor earnestly for this measure, till its successful operation is permanently secured.

FRANCIS P. FITCH,
For the Committee.

MAY, 31st, 1859.

SCARLATINA, &C.

BY JOHN S. FERNALD, M. D.

"Medicine is a science of facts." This remark needs qualification. A collection of facts, without analyzation and classification, is not science, but material for its construction. A mass of hetrogeneous materials is not a house until they are assorted, placed in positions to which each article is fitted. The records of medicine abound in facts relative to some of our most severe and fatal epidemics, but these facts are isolated. Facts have not been collated with other facts, and any principle educed which would have an effect to settle a question in pathology or therapeutics.

These remarks are, we believe, especially applicable to scarlatina. Facts are abundant, showing the rise, progress and termination of this malady. The phenomena exhibited are indispensable: efflorescence, soreness of the fauces, swelling of the tonsils and face. The symptoms on its accession are vomiting, heat and dryness of the skin. It is limited in duration, attacking the system but once. It is infectious. Its communicability without contact and other characteristics place it in the same class with variola and other exanthems, which depend on a specific virus for their propagation, and are amenable to the same pathological law.

We think that it may be announced as a correct pathological principle that every disease has certain symptoms, which are pathognomonical; that these are the central phenomena around which cluster the other symptoms which are not radical. In scarlatina we consider the efflorescence to be pathognomonical; the

cynancheal symptoms to be the same phenomena exhibited in a differently organized texture. Inflammation of the durmoid, fibrous, serous or mucous texture will exhibit different phases, the exciting cause being identical.

If every disease has a symptom which is pathognomonical, distinguishing it from every other disease, then we must infer that the proximate causes of that symptom are always identical. We may therefore announce the following proposition: That every disease has its peculiar seat or *nidus* from which emanate those influences which excite the sympathies of other organs, affording those complications so often observed. The class of exanthems has its peculiar seat — variola, the skin; rubiola, the skin and air passages; cynanche parotidea, the parotid gland, etc. We may properly infer that scarlatina has also its seat. We believe that the legitimate seat of scarlatina is the cerebro-spinal axis, particularly the cervical spine in its superior part near the cerebellum, and perhaps involving that organ and the anterior cervical plexus. It may be objected to this view that scarlatina exists without the rash, erroneously so called. If a disease exists which has efflorescence, neither on the skin nor fauces, it is not scarlatina. In anemic subjects, the efflorescence may be absent from the *skin* from the physical impossibility of its being exhibited; the paucity of red globules and the preponderance of serum in the blood, prevent its manifestation. We think that in the mildest cases, the fauces are not free from some degree of redness and engorgement, although the sensibility may not be so exalted as to show any considerable degree of tenderness.

Instances are not wanting where a few hours are sufficient to terminate life. In all of these cases the brain has received the force of the shock of the exciting cause or virus. Usually with an attack so vigorous, and fatal within twenty-four hours, the efflorescence is not permanently present, but fluctuating, the color being a dark mahogany, often a purple, from deficient æration of the blood. A predisposition to cephalic disease is unfavorable to a safe passage through an attack of scarlatina, for it is very sure of being involved and adds much to the danger.

It has been observed that in injuries of the cervical spine, when

the cord has been partially divided, an efflorescence of the skin takes place. Here is an interruption of the functions of the cord from traumatic lesion. Efflorescence, the pathognomonic symptom of scarlatina is exhibited, from a wound of the cord and its appendages; congestion, if not inflammation, must be the consequence of the injury. We have, then, demonstrative proof, so far as this one instance serves, that congestion or inflammation of the cervical cord or its appendages produces an efflorescence of the skin. "Like causes produce like effects" is a law immutable as truth and cannot be abrogated. If a wound of an organ produces certain phenomena and those phenomena are exhibited by disease, the evidence is conclusive that the same organ is the seat of the disease.

We infer that the virus affects primarily the cervical spine, by producing congestion in the substance of the cord and the roots of nerves proceeding from the part, and involving the anterior cervical plexus, that the effect of the virus on the part, is sedation, thereby deranging the function of the cord, inducing a paralysis of nerves of the capiliaries. Efflorescence is the effect of letting the red globules enter the paralyzed vessels, which have lost their contractility, which in health are excluded. Inflammation does supervene in the throat and nose, followed by a copious mucous or muco-purulent discharge, and sometimes by sloughing. This is not the effect of the specific virus of scarlatina, but is secondary, arising from a determination of blood to the part, in accordance with the physiological axiom, "*Ubi irritatione ibi fluxtes.*" When inflammation takes place, though the exciting cause be removed, the inflammation will proceed to its termination, notwithstanding. This sufficiently explains the continuance of the throat affection after the subsidence of the original disease.

Authors describe this disease in three varieties: scarlatina simplex, scarlatina anginosa and scarlatina maligna. These divisions serve only to confuse. It is undoubtedly the same cause affecting the animal economy only in degree, magnified by accidental circumstances and conditions of the system, as vigor, healthful tone, predispositions, etc. The symptoms will be more or less grave, in proportion to the severity of the local affection

—that of the cord. If the functions of the cord be but slightly disturbed, scarlatina simplex will be the grade; if more disturbed, the scarlatina anginosa; and if still more so and more extended in its effects on the nervous system, scarlatina maligna. The phenomena exhibited in the malignant form, we believe, are produced by an atony of the nervous system, by the effect of the virus on the nervous centres, thereby indirectly deteriorating the blood, by disturbing the functions of the excretories, whose office is to depurate the blood; the consequence is all the phenomena of of typhus and malignity.

The pulse is always soft and compressible, from innervation of the organ of circulation. If we were to regard the pulse alone, we should conclude depletion would be contra-indicated; but, when we reflect that the small pulse is the effect of congestion of the cerebro-spinal axis, and it is that which obstructs the circulation and depresses the system, we should at once conclude that depletion, locally applied, would be very judicious if not indispensable. The fear of debility is a source of much improper medication. When an important organ is congested, and the whole system in a perturbid state in its efforts to remove the obstruction, to goad the system to farther exertions by stimulants, and not to endeavor to lighten the load by removing the obstruction by depletion, from fear of prospective debility, is as unphilosophical as it is destructive. The depression of the circulation from the cause assigned has been the reason why scarlatina is deemed an asthenic disease, requiring stimulants and tonics from its commencement. This practice appears to us contrary to all sound pathological principles. Stimulants and tonics are only admissible in disease where atony is a consequent of overaction, where congestion or inflammation has been resolved.

The sequelæ of this disease are often severe and obstinate, among which dropsy is most frequent and fatal. Dropsy is more frequent as a sequel of mild than of severe cases. It is precursed by the discharge of urine of a tinge decidedly black, depositing a black sediment; when we see this we prognosticate dropsy, and are rarely disappointed. This deposit is, we apprehend blood from the capillaries of the kidneys, which are

congested. The atony of the absorbants combined with the disordered functions of the kidneys produces such a state of the economy that dropsy follows as a consequence.

The treatment that commends itself to our mind is decidedly antiphlogistic: depletion by leeches or cups for the cervical spine, according to age and strength, followed by a cantharides blister, in width just sufficient to cover the vertebræ, and from one to three inches long; leeching or cupping to be repeated as occasion may require. Leeches behind the ear and over the mastoid process, followed by a blister, would contribute to the end in view. Frequent ablution, with tepid water or milk and water, tends to cool the skin, remove irritation and to promote rest. Salines, as internal remedies, of which we prefer subcarb. soda, given in suitable doses, six or eight times a day, according to circumstances. Chlorate of potass as a detergent; acidulated gargles, at the close of the disease. Tinct. mur. ferri largely diluted with water applied with a sponge to the fauces, is very efficient both as a detergent and astringent. Desquamation begins the sixth day; frequent ablution at this stage also is requsite to relieve irritation and to remove the old cuticle. With this mode of management, we have been usually able to conduct our patient safely through the disease; there are cases, however, which baffle all exertions, and proceed rapidly to a fatal termination.

Belladonna has been thought to have prophylactic power. We have not been able to verify this opinion; on the contrary, we think it cannot be supported. *A priori* we should conclude that no sedative would have the effect to destroy the susceptibility of the nervous system to the impressions of a specific virus. If indeed a fact of this kind could be established, it would be a great acquisition to medical science. Belladonna administered in small doses for some length of time, it has been ascertained, will produce an efflorescence on the skin. This fact goes to establish the hypothesis of innervation of the capillaries. This state of these vessels could not occur without the nervous centers being in a state of disorder. Belladonna is a sedative peculiar in its effects, in producing dilitation by topical application, of course by suspending contractility. Internally administered, its effect,

primarily, will be on the cerebro-spinal axis; secondarily, on the capillary system; the result efflorescence. If it should be ascertained that belladonna operates as a prophylactic, it would not go to establish the truth of Hahnemann's axiom, "*Similia similibus curantur*," as a pathological fact. This homœopathic axiom is an assumption contradicted by so many well known facts, that we may justly place it in the category with many other gross absurdities and idle whims.

We make the following suggestion as embodying our views in regard to the pathology of scarlatina: Scarlatina, like other diseases of its class, is the effect of specific virus; that the primary effect of this virus is on the cerebro-spinal axis, involving the anterior cervical plexus; that the efflorescence and cynanche are secondary, their severity depending on the intensity of the local affection.

The following propositions commend themselves to our judgment as correct principles of pathology:

1st. All external agents affect the animal economy through the nervous system. Their primary affect is on the nervous centers.

2d. That all the phenomena constituting fever are secondary, and are the effect of local innervation, which is the result of congestion of the cerebro-spinal axis.

3d. Inflammation cannot occur but as a sequel of congestion, nor congestion without innervation.

This series of consecutive acts is a pathological law. The imputation that certain diseases are produced by blood-poison as a primary cause, contravenes this law, and is opposed to sound pathological principles.

Neurology and neuropathy have not received that attention that their importance appears to demand.. The investigations of Walker, Marshall Hall and others on the anatomy and physiology of the spinal cord, have opened extensive fields for further research, promising important results to those who have the leisure and ability to pursue the subject. To Marshall Hall we are indebted for the discovery that the spinal nerves have different functions to perform, sufficiently distinct to entitle them to special names, one of which he denominates the Excito-Motory. We

are indebted to Dr. Campbell, of Georgia, for introducing another system which he calls Excito-Secretory. These distinctions in the functions of the nerves, appear to be founded on sound physiological principles and cannot fail to have an important influence on general pathology. In certain diseases and states of disease, phenomena are exhibited which evidently are not induced by either the excito-motory or excito-secretory systems, that is a morbid sensitiveness, both externally and internally, as manifested in the stomach, bladder, uterus, etc. This we would suggest be called Excito-Sensory system. All the senses may also become morbidly acute. These phenomena require special medication for their removal. Whether these symptoms proceed from a certain system of nerves, and may be dignified by the name of a system, or is merely a condition, requires farther investigation.

BIOGRAPHICAL SKETCH

OF NATHAN SANBORN, M. D., OF HENNIKER, N. H.

FURNISHED BY E. K. WEBSTER, M. D.

Dr. Nathan Sanborn was born in Sanbornton, Belknap county, New Hampshire, on the 7th of March, 1791, and was the son of the late Ebenezer Sanborn, Esq. His early education was received at the common district school of his native town. At the age of nineteen he commenced fitting for college under the direction of Rev. A. Bodwell, the clergyman of that place. In 1812–13 he attended the academy at Gilmanton, where he completed his preparation for college. Ill health prevented his pursuing a collegiate course. In the following year (1814) he commenced the study of medicine with Dr. Sawyer, of Sanbornton, with whom he remained two years. After this he studied and practiced six months with Dr. Shaw, of Moultonborough, and in the fall of 1815, attended his first course of medical lectures, at Hanover. In 1816, he commenced practice in Henniker, where he continued in active business, until his death, forty-two years. In 1833, he attended another course of medical lectures, and took his degree, having heretofore practiced under a license from the New Hampshire Medical Society, as was common in those days. In the year 1816, he married Miss Lois Lancaster, of Sanbornton, who, with five sons and three daughters, is still living. In 1821, he was elected Fellow of the New Hampshire Medical Society, of which he continued a worthy and respected member until his death. He was a member of the Center District New Hampshire Medical Society, and a permanent member of the American Med-

ical Association. The last meeting which he attended was at New York, in May, 1853, and he was on the train at the memorable disaster at Norwalk, Connecticut, where he received injuries from which he never fully recovered.

As a physician, by his discretion and skill he acquired the confidence of the community, and by his suavity of manners, together with his superior mental endowments, he won the esteem and respect of all with whom he had intercourse. He was a most uncompromising foe of quackery, in all its forms, and, in his professional as well as in all other business transactions, he was most strictly conscientious and honest.

He made a public profession of religion, and united with the Congregational church in 1834. As a christian, his genuine piety was a marked characteristic in his life, and the consolations of religion sustained him through years of suffering, and were his comfort and stay in the "valley of the shadow of death."

He had a taste for poetry, and in early and middle life often composed it. In later life, he was somewhat engaged in geneological researches, and, at the time of his death, was preparing a history of the Sanborn family.

The benovolent enterprises of the day found in him a warm advocate. He was one of the earliest movers of the temperance reform, and it is said of him that "he would never taste ardent spirit, although while he was young it was an almost universal custom."

Of his last sickness and death his attending physician says:

"Some twenty years ago, he had a severe attack of pleuro-pneumonia, since which time he has suffered, more or less, from disease of the respitory organs. Within the last four years, he labored under disease of the alimentary canal. During the past year he had had a number of attacks of vomiting. In July he had an unusually severe attack which lasted three or four days. He was very much prostrated, and did not recover his usual tone of health afterwards.

"On Monday, November 29th, he was taken with dizziness and severe headache, was unable to sit up during the day, had no appetite and was somewhat wandering. Tuesday, symptoms

much the same, tongue coated with white fur. He fainted on attempting to rise from the lounge. Wednesday, headache some better, mind clear, vomiting continued, the matter ejected being of a dark green color. Thursday, was unable to sit up; all the symptoms much the same. Friday, tongue covered with thick creamy fur, pulse sixty and full, did not vomit but had distressed retching spells, and raised a thick glairy mucous; urine scanty and abounding in lithate of ammonia.

"There was not much alteration in his symptoms until his decease. Vomiting recurred on the 7th, and continued at intervals until his death. His pulse, during the last week of his illness, was very variable, ranging from sixty to one hundred and twenty. His strength continued to fail, and he died Wednesday, December 15th, 1858, at two o'clock, A. M.

"Some years previous to his death he had expressed the desire that, after his decease, his body should be examined; and, in accordance with his request, a post mortem examination was made.

"Autopsy, thirty-six hours after death. Cadavaric rigidity fully established. On exposing the cavity of the chest, the left lung was found adherent to the fourth rib near its cartilage; likewise adherent, to considerable extent, to the diaphragm. The posterior part of the lung was bound, by firm adhesion, to the costal plura. The heart was dilated on its right side, the left ventricle hypertrophied. All the valves normal. In the right chest, the lung was found adherent throughout the whole posterior part of it, to the costal plura and to the diaphragm below. The tissues of the lungs themselves were normal. The liver was found increased in size, of a pale fawn color and granulated. In the stomach was found slight ulceration, and about the cardiac orifice, and on the larger curvature extensive ecchymosis, together with corrugation of its walls, and loss of patches of mucous membrane. The pyloric orifice seemed healthy, and as far as the examination was carried, no other disease was found in the body."

Thus passed away one of the earliest and most respected members of this society; one who, in purity of life, in the faithful and

conscientious discharge of his duties to the sick and distressed, in the high-minded and honorable course he pursued towards his professional brethren, in his efforts to sustain the interests of the profession and to elevate the standard of medical science, and also in his endeavors to promote good morals, virtue and religion, and to discountenance and frown upon vice in all its forms, has left us an example worthy of our imitation.

BOSCAWEN, June, 1859.

SEVENTIETH ANNIVERSARY.

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY

HELD AT CONCORD,

JUNE 4TH & 5TH, 1860.

MANCHESTER, N.H.
PRINTED BY C. F. LIVINGSTON, SMYTH'S BLOCK
1860.

TRANSACTIONS

OF THE

NEW-HAMPSHIRE

MEDICAL SOCIETY,

HELD AT CONCORD,

JUNE 4TH AND 5TH, 1860.

SEVENTIETH ANNIVERSARY.

MANCHESTER:
PRINTED BY CHARLES F. LIVINGSTON.
1860.

PROCEEDINGS.

THE Seventieth Annual Meeting of the NEW HAMPSHIRE MEDICAL SOCIETY was held at the City Hall in Concord, on Tuesday and Wednesday, June 4th and 5th, 1860, JAMES B. ABBOTT, M.D., in the Chair.

The record of the last meeting was read by the Secretary.

The following named gentlemen were recommended by the Council, and unanimously elected Fellows:

George A. Bright, M.D., Concord;
Charles F. Kingsbury, M.D., Lyme;
Alfred Livingston, M.D., Boscawen;
Carl A. Volk, M.D., Claremont;
F. C. Weeks, M.D., Brattleboro', Vt.;
Enoch Blanchard, M.D., Meriden;
William Waterhouse, M.D., Barrington;
Nathaniel Tolles, M.D., Claremont;
E. A. Judkins, M.D., Claremont.

The following named gentlemen were appointed a Committee to examine patients: Drs. Smalley, Tenney, Clough, Mason, Robinson, Buck, Webster, Smith of Peterboro', Gould, and Whittemore.

The following named gentlemen were appointed a Committee on nomination: Drs. Knight, Smalley, Shannon, Hall, Bunton, Moulton, Stackpole, Marshall, and Garland.

The following named gentlemen were appointed a Committee to audit the Treasurer's account: Drs. Bean, Stone, and Currie.

The President delivered the Annual Address at 12 M., which was referred to the Committee on publication.

Voted, Charles Chase, of Deerfield, be restored to membership in the Society by paying the annual fee.

Voted, That a committee of three be appointed by the Chair to make a report on the disease prevailing at the present time among neat cattle, and report what action, if any, may be taken upon the subject at this time. Drs. Mason, Hamilton, and Hill were appointed.

The Committee on nominations made the following report, all of whom were unanimously elected:

President, J. C. EASTMAN, M.D., Hampstead.

Vice President, E. K. WEBSTER, M.D., Boscawen.

Secretary, W. W. BROWN, M.D., Manchester.

Treasurer, L. M. KNIGHT, M.D., Franklin.

Councillors: Drs. A. A. Moulton, L. W. Peabody, M. R. Warren, George Sanborn, Charles Palmer, D. F. Parker, L. C. Bean, C. F. Elliott, Nathaniel Tolles, J. L. Sweat, S. W. Roberts, S. Bunton, William Laighton, A. S. Carpenter.

Censors: Drs. T. W. Wilson, John Wheeler, H. B. Fowler, Nathan Call, G. W. Martin, Adams Moore, Valentine Manahan, Luke Miller, E. H. Davis, T. J. W. Perry, D. S. Prescott, Nahum Wright.

Committee on Surgery: George B. Twitchell.

On Practical Medicine: A. H. Robinson.

On Epidemics: P. A. Stackpole.

On Obsteterics: Dixi Crosby, E. H. Davis.

On Publication: W. W. Brown, G. H. Hubbard, A. A. Moulton.

On Arrangements: L. M. Knight, Ezra Carter, C. P. Gage.

Orators for 1861: A. A. Moulton, A. B. Crosby.

Substitutes: Thomas Sanborn, J. P. Whittemore.

Delegates to the American Medical Association: J. L. Sweat, C. P. Gage, J. C. Eastman, L. W. Peabody, C. F. Kingsbury, L. C. Bean, L. G. Hill, Josiah Crosby, N. W. Oliver, S. Bunton, C. H. Shackford, J. H. Crombie, J. P. Whittemore, J. F. Hall, S. W. Roberts.

Delegates to Dartmouth College: Drs. J. F. Hall and J. L. Swett.

The Committee to whom was referred the subject of the cattle disease, made the following report: That it is expedient that a committee of five from the Fellows of this Society be appointed by the Chair, whose duty it shall be to investigate the so-called "Cattle disease," and report at their earliest convenience. Said report may be made directly to this Society, or in the public prints.

The Chair announced the following named gentlemen as the committee: W. H. H. Mason, C. B. Hamilton, F. P. Fitch, John S. Fernald, A. Smalley.

Dr. Clough, of Lebanon, made a report on Malignant Pustule, which was referred to the Committee on publication. Remarks were also made by Dr. A. Smalley, upon the same subject. Remarks were made by Dr. Hamilton, of Lyme, upon Diphtheria. Dr. E. Carter related a case of Ovarian Tumor, and successful operation.

Voted, That Dr. Marshall prepare his report and present it to the Committee on publication.

A report of L. M. Knight, one of the delegates to attend the examinations at the Medical department of Dartmouth College, was read and referred to the Committee on publication.

Voted, That the thanks of this Society be presented to Mr. Shirley, of Andover, for his interesting remarks on the "Cattle disease."

Remarks were made by Dr. Garland on the Healing of Wounds, both incised and contused, by the first intention, and also the obliteration of recent Cicatrices.

Voted, That Dr. Garland, of Lawrence, Mass., be requested to furnish a statement of his observations on the treatment of Lacerated Wounds and the obliteration of recent Cicatrices, for publication in the Transactions of this year.

Adjourned to half past eight o'clock to-morrow morning.

WEDNESDAY, June 6, 1860.

Met agreeably to adjournment. The President elect in the Chair.

A memorial of the American Medical Association on the subject of Criminal Abortion was presented by the President for the consideration of the Society, whereupon it was—

Resolved, That we fully and cordially endorse the action of the American Medical Association in relation to the subject of Criminal Abortion, and we hereby recommend its memorial to the consideration of the legislature.

Resolved, That Drs. Mason and Hamilton be a committee to present the above resolution and subject.

The following resolution was unanimously adopted:

Resolved, That any member of this Association found or proved guilty of procuring criminal abortion shall forfeit his membership.

Interesting remarks were made by many members on Medicine and Surgery, and important cases related and discussed.

A resolution from Dr. Thayer, of Keene, was introduced by Dr. Stackpole, of Dover, relative to compulsory Vaccination.

Resolved, That a committee of five be appointed to petition the legislature during the present session for the passage of a law making Vaccination a condition of admission as a pupil to any public school in the state.

The following named gentlemen were appointed a committee agreeably to the foregoing resolution: Drs. Thayer, Stackpole, Webster, Mason, and Carr.

Committee on examination of patients promised a report of their cases at the next annual meeting.

Adjourned.

W. W. BROWN, Secretary.

ANNUAL ADDRESS

BY JAMES B. ABBOTT, M.D., PRESIDENT.

GENTLEMEN OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

It is with pleasure and pride that we look back upon that list of worthy men, who have preceded us in this Society. Its early founders are known to most, if not all of us, only in history. But although we know them not as personal acquaintances, many of us can look upon those we *have* known; but who are *not* here; and we revere their memory. Some of us can recall to mind those we have seen fill this chair with honor and dignity, now occupied by your unworthy servant. Alas, we see them here no longer. But their memories remain like a cherished jewel, never to be lost.

I will not longer trespass upon the ground so ably occupied by my worthy predecessor, when in his peculiar and happy style he gave us reminiscences of the past, and salutary advice to direct our present course, and inculcated principles of action for future life.

But shall we not, gentlemen, for a moment glance from the past to the future? Has this society already seen its palmiest days? And are there no worthies still to come, who will honor the seats their noble predecessors have occupied? When I look upon the junior members of the society before me, my ready response is — *there are.* I behold in the vista of years to come, when he who now addresses you, and many others, will be here no more, our places filled by those, whose light will illumine the pathway of medical science, and who will honor the profession we espouse. And let us all, in view of the past, and the bright prospects of the future, press on, and work while the day with us shall last.

You will pardon me, gentlemen, while I have, in the warmth of my feelings, digressed from the main subject, which I had selected for remark.

I propose to solicit your attention for a short time to

SOME OF THE SOURCES OF DISAPPOINTMENT IN THE EFFECT OF REMEDIES IN THE TREATMENT OF DISEASE.

And some of the causes which I shall bring, perchance, may be considered trivial, and of little importance, and scarce worthy to occupy the time in an annual address before an enlightened society like this;—but, gentlemen, as a small and apparently insignificant insect forms the mighty coral reef—as the small leak sinks the noble ship—as the last grain turns the balance—so in disease, a slight deviation from the right course, a slight influence exerted upon a system already weakened and irritated by disease, will frequently turn the whole current of action, and lead to a result which all our skill cannot avert. How often have we seen cases, in which all seemed favorable, and we felt almost sure of a happy termination; when unexpectedly and suddenly the aspect changes; and, from this time, notwithstanding our best exertions, the course is downward. Sometimes we can ascertain the cause, sometimes we cannot. But where we can, how apparently slight—but under the circumstances, grave enough to turn the scale of life or death, when the case hangs upon the pivot, fluctuating and trembling between the two extremes—how small the impulse—how delicate the touch, that gives the final issue. And when we consider how important the life may be, placed in our hands with all its relations and endearments, its connections with society and the world, and its interests for eternity; and that a responsibility rests upon us, deeply and solemnly connected with these, and many other important considerations—shall we not do well, to leave nothing undone, or unthought of, which can conduce to the happy termination? And if so slight a cause as we have seen, may fix the final destiny, shall I be blamed for pointing out some of those things which possibly may have been overlooked, or

deemed trivial by some? We have books and living instructors, who explain to us with clearness and accuracy the pathology and treatment of disease. Handed down from the days of Hippocrates, we have the experience of ages before us; and if we have been good students, we are not in the dark with regard to the nature of disease and the powers of medicines. But the longer I live, the more experience I have in the healing art, the more I am impressed with the importance of other things besides prescribing the medicines appropriate to the disease; and I hesitate not to say, that there are physicians, who will cure more patients with almost no medicines, than others with much; and perhaps with equal talents and knowledge. The last depend almost entirely upon their medicines,—the first have equal confidence in what medicines they use; but only in connection with other considerations, which the first, perhaps, deemed unworthy their serious attention.

Let me now solicit your attention for a few moments, to some of these considerations.

One prolific source of disappointment, doubtless arises from *the inferior quality of many of our medicines.* This is a subject which deserves, and has received the especial attention of the profession. And we hope, and believe, it will still receive it. If food of an inferior quality cannot be received into the system in health, with impunity, how can we expect, when the various organs are enfeebled and irritated, and the functions deranged by disease, and when such a nice adaptation of the remedies is required to produce the desired effect, that this effect will be produced by medicines of variable and uncertain quality? I have no doubt but more of the disappointment we experience in many cases, arises from this source than we are aware of. It is not always easy, and sometimes impossible without chemical analysis, to distinguish between articles of a superior and inferior quality. It is well for us to familiarize ourselves with the sensible properties of drugs and compounds that we may more accurately judge of these qualities. Materia Medica and Pharmacy, perhaps have

not received that attention from practising physicians which their importance demands.

We will now pass from the subject of the qualities of medicines, to some considerations connected with their *manner of administration*. And shall I be disputed when I affirm that *too much medicine* is frequently, if not generally administered. Are we suitably impressed with the fact, that we are dealing with *living*, organized bodies, and that all we are required, or can do, is to assist, and regulate the powers of the system? I have as much confidence in the utility and powers of medicine, as I ever had; but perhaps I do not *depend* upon the *medicines* administered, quite so exclusively, as in my early years of practice. In intimate connection with this, is the fact, that we may, and I fear, often do, *administer medicine too frequently*. We feel anxious to benefit our patient as much as possible, and do not wait for the full effect before another, and then another dose is given. The stomach already weakened and irritated by disease, at length rebels, and exercises those powers of expulsion, which happily are not yet destroyed; and a heterogeneous mass of powders and pills, infusions and morbid secretions, is poured into the vessel for our further contemplation. The patient then feels relieved and refreshed, and is in a fine conditiom for a repetition of the process. But what is the effect of this repetition? Where is the benefit? No where. In many such instances we had better trust to the natural powers of the system, which still remain; with no medicine, than thus to burden and disturb them. The system *must suffer* under this frequent medication. The effort to expel the irritant and recover itself, must of course, debilitate the system, and render it far less capable of resisting disease; and I verily believe there are many protracted cases, if not fatal, which are rendered such by overdosing. Sometimes the results are deplorable in the extreme. Such was the case of an amiable and beautiful young lady I once saw. She had been for some time entirely narcotized, and was under the poisonous influence of repeated doses of morphine; as was said, and which, too plainly appeared, was the fact.

She had been suffering from violent neuralgic pains—friends were anxious, and doubtless pressed their importunities for relief. The sympathies of the attendant were enlisted, his better judgment overpowered, and the doses administered in such rapid succession ere the effect was seen; that at length a result was produced, which, had worlds been possessed, would have been freely sacrificed, to havc averted. Indeed, it often requires no little firmness and independence of mind, to resist the importunities of friends, and the earnest appeals of the suffering patient for relief; and to regulate the frequency of our potations by the dictates of prudence and skill. True, there are some cases which require medicines to be administered, *very frequently*. The sinking patient must be roused by oft repeated stimulants—the alarming hemorrhage may require the astringent dose in quick succession—the emetic must be repeated until the stomach respond—and even the tonic may be given at short intervals, and in minute doses, when in a case of extreme debility, the common dose cannot be tolerated.

But frequent dosing should be the exception, not the general rule. I believe the views I advocate are gaining ground; and I rejoice it is so; for scientific reasoning and enlightened experience certainly prove them true.

Nearly allied to the last is the practice of administering *too many kinds of medicines at the same time*. This is a serious evil, and productive of much mischief. A patient is laboring under a fever. Let us examine the medicines prescribed. Here we find two, to be given alternately for the fever; another for a sinkiug fit; another, at stated times, for some urinary trouble. Some diarrhœa attends, and something is left exprcssly for that; and as the patient has some cough, it is deemed very necessary that this should be met by an appropriate medicine. And if some other prominent symptom should be present, we shall find a remedy for it. Now here we have some half dozen different medicines poured into the same stomach, in quick succession, and continued from day to day. Here is work indeed for an organ already weak and irritable from disease. If the system in health suffers from too much variety of food, what can wc expect from this kind of medi-

cation? Just what does take place; in many instances, we injure the patient rather than benefit him. And I confidently affirm that we had better use no medicine at all, than prescribe it in the manner it is sometimes done. Our systems are "fearfully and wonderfully made," and possess a mighty power of assimilation; adapting the various substances taken into the stomach, to the wants of the system in health and disease. But there is a limit to this power. Let us not overstep this limit. Let us *suffer our patient to live.*

Gentlemen, are we all entirely free from sin in this matter? If the one guilty of such a course is to be stoned, and he who is entirely free from error in this respect, is to commence the work; who, *who*, among us will cast the first stone? Who of us has not found occasion to clear our tables of many articles, which, almost before we were aware, had accumulated there?

Changing our medicines too often is another source of disappointment in their effect. This may arise from a want of confidence in our own judgment, or in the value of the medicine; or we may be averted from the course our better judgment dictates, by the anxieties, importunities, or erroneous views of friends. We have a patient for whose speedy cure we are exceedingly anxious. At each successive visit we find no perceptible amendment, but rather the reverse. We begin to question the propriety of our course, not giving full attention to the fact, that many diseases must have a certain course—that all the operations of our systems are governed by certain laws, which we cannot change, and that the most we can do is to direct and modify the operations of those laws, that life must be preserved and health restored. We frequently *expect* our patient to recover too soon. We somehow imbibe the idea that we can, as it were, force the disease from its hold on the system; and lose sight of the laws of sickness and health. We are looking for too great, or immediate effect of medicines; and as we are disappointed in this, we lose confidence in the remedy; and change for another, and then another. Here we see the importance of decision and firmness of character in the physician—that he have a thorough knowledge

of the principles of his profession, and that his practice be governed by a scientific understanding of those principles.

There are some considerations connected with the administrations of medicines, which may be considered of minor importance, but which, nevertheless, modify their effect.

A certain and proper degree of concentration is requisite, to produce the best effect. Medicines may be administered too concentrated, producing an unpleasant, or even injurious effect upon the coats of the stomach; or in a state of so great dilution that the effect upon the system is greatly weakened, or nearly lost. This consideration should not be neglected. I am confident that medicines are administered in such a state of concentration, that the disturbance produced upon the system, counteracts nearly all the good effect expected from their exhibition; and I am equally certain that the effect is nearly lost by permitting the nurse to dilute them improperly. We should consult the condition of the system, the habits of the patient, and the character of the disease. An extreme irritability of the mucous membrane may require an extreme dilution; while a sinking fit frequently demands an agent so concentrated, as to produce a powerful effect upon the nerves of the stomach, even such as will, for the moment, give distress to the patient.

The *form* in which a medicine is administered, is often of consequence. The different conditions and disorders of the system may require a modification, with regard to the *fluid* or *solid* form; and the difference in the effect is not of small account.

I think there are many who do not pay a proper regard to the *tastes and feelings of the patient*, in the exhibition of the medicines. Some seem to take it for granted that medicines are disagreeable, and use very little means to render them palatable; if they are swallowed, it is all well; let them be ever so repugnant to the feelings of the patient. It is a mistaken notion, that if a medicine is DOWN, it is no matter how. We consider it of importance that our food be so prepared, and of such qualities, as to render it agreeable to the taste and that we receive pleasure, instead of disgust in its reception; and we can imagine the disas-

trous effect, if from week to week, and month to month, we were confined to food, disgusting to the taste, and repugnant to all our senses, were it ever so nutritious. So I believe in the receiving of medicines; the taste, the sight, the smell, and the impression on the mind, should all be consulted; so that the greatest degree of calmness, and comfort possible should exist; and the senses gratified, as far as possible, and thus the system prepared to receive the best possible effect. We deem it of much importance, when a person is passing through a course of serious disease, that every thing tending to disturb or excite be removed as much as can be done. Why then tantalize him with preparations, the very thought of which, to him, is disgusting, and the swallowing of which gives a shock to the remotest part, if we can in any degree render it more agreeable?

So strong is the repugnance to the medicines in some cases, that the patient's dread is excited, more than from all the pains of sickness.

These considerations apply with peculiar force in the treatment of disease in children. When I am obliged to use force in its exhibition to them, I expect to lose much of the benefit. Although this is often necessary; still if it can be avoided by particular care in the preparation, or by substituting something in its stead, less nauseous, but equally efficacious, it should certainly be done.

As so much has been written upon the importance of *pure air, cleanliness, proper attention to diet, and temperature*, in the treatment of disease, it may be thought superfluous to allude to them at this time. But, gentlemen, until we find full attention paid to these subjects, practically, we should not cease to speak of them, and hold them up, as of momentous importance; and if not so regarded, and full attention given them, we shall find a sure, and mischievous source of disappointment in the result of our endeavors to combat disease. And if we judge by what we see, their importance is not fully appreciated. I am aware that in common practice, it is not always possible, with our best endeavors, to accomplish our wishes in this respect. In some localities we find whole neighborhoods subject to impurity of atmosphere, and of

course unhealthy. And often the apartments of the sick are so situated, as to render it impossible to obtain that purity of air, desirable; and often this is the best that can be obtained. The patient or friends, or both, object to fresh air, when it *can* be obtained, from the mistaken notion of taking cold. Even if we insist upon opening the doors or windows when we are present, they are often closed as soon as we are fairly away. And with many it is impossible, even with much assiduity on our part, to keep the apartment, or our patient cleanly. Neither can we regulate the temperature, always to our mind. There is too much of a disposition to keep the sick room at too high a temperature, to the damage of the patient; and this we cannot always prevent, for we cannot always be present. Thus in many instances it is out of our power to prevent these evils.

But, gentlemen, do we *see*, and *feel* them as we ought? and act with that energy and faithfulness, our duty to those whose lives, under God, are placed in our keeping demands? Do we use what means and influence we can to enlighten and convince our patients, and their attendants, of the vast importance of strict attention to these points? Or, do we visit them, examine their symptoms, make our prescription—give them a little general advice respecting good air, &c., and hasten away, glad to escape the pestiferous influences within, and regale our lungs and raise our spirits by the pure air without? Are we faithful to the trust reposed in us? Do we act with reference to the fearful responsibility resting upon us? Was the sick room offensive to us, requiring all the energies of our system to resist morbid influences? How then can our patient, already enfeebled by disease, and the various functions of the body deranged, bear up under the load? The medicine we prescribed was perchance given according to directions, but how much can we expect from it? Pent up almost entirely from the ingress of fresh air; the morbid exhalations from the body, absorbed and re-absorbed; every inspiration pours into the lungs a current of contamination, while filth and unremoved excretions add another item to the sickening catalogue. The mind, of course, depressed—how can it be otherwise? Again I ask, how can this

patient live? Instead of wondering why such subjects are not restored; the greater the wonder that they live at all. And it is not in the miserable dwellings of the poor, that all the evils of which I speak, are found. One or two, at least, are more frequently seen in the comfortable dwellings of the higher class. I have reference to confined air and heat; for here they have the power of shutting out the refreshing breeze; while the various apertures in the loose covered hovel, admit that which is more precious than gold. I had rather see the rain dashing through the open crevices, or find a snow-drift on the floor of my patient's room (as I have done,) than in the condition above described. Indeed, these last are rather apt to live.

As a contrast, permit me to describe a case, which occurs to my mind, and is fresh in my memory. The patient was a youth, with fever. It was in the hot season. The room was large and airy—the attendants neat, in all the details of the sick room. A wide door opened to the west, towards which the foot of the bed pointed. One day when I visited my patient, during a fresh but warm breeze, I found the wide door open; and the wind playing such rude gambols with his covering sheet, as to require occasional replacing. This was so grateful to him, that he insisted upon its continuance; and far was I from objecting. Here the morbid exhalations from the body were scattered to the winds—at every inspiration, fresh and healthy air was received; while the spirits were cheered by Heaven's breezes, and a glympse through the open door, of the enchanting scenery without. And add to this, there were hopeful and cheerful attendants—and I think a cheerful doctor. Indeed, how could he be otherwise, when all went on so well? And the patient did well, and lived; as you would all suppose he would; especially if we did not retard the cure by too much medication. Indeed, under such circumstances, patients generally require but little medicine. And here we find the source of much of the success of Homeopathic practice. The patient *supposes* he is taking all the medicine he needs, while the taste and appearance are far from disagreeable. The physician possesses the full confidence of the sick and his friends,

and enforces a strict attentian to diet, air, temperature, and the various and healthful appliances of the sick room. These regulations are strictly adhered to, through the course of the disease; and thus, with no effective medicine, the patient often does well.

To me, the importance of the subject under consideration, increases as I increase in years and experience—and believe me when I assert with confidence that I address an audience whose views are correct upon this point. It is the *practical effect* of these views which we wish to see.

Shall I trespass too much upon your patience, in offering a few remarks, with reference to the *manner and general appearance of the physician*, as having an important bearing upon his success and usefulness in his profession. I was pleased with a remark made in this room, a year since, by a member present, with reference to the marked success of a brother member. The remark was to this effect, "that no small item of his success, was to be attributed to his pleasing deportment, gentleman-like bearing, and encouraging manners." And I believe other things being equal, the man possessing these qualifications will cure more patients than the opposite character. Indeed, the gloomy and morose man should never enter the profession. The sick bed imparts gloom enough without being increased each time his physician enters. If any one needs the sympathetic and encouraging word, the kind and cheerful look, it is the tenant of a bed of sickness—and if any one should carry sunshine and happiness wherever he goes, it should be the physician. How often has the word of encouragement imparted new vigor to the desponding sufferer. How oft, as we enter the sick room, and sit down to examine our patient, is our countenance keenly scrutinized, and every word, and every motion even watched with the most assiduous attention, and if gloom and discouragement characterize our bearing, how sad and heart-rending the look of despair before us. And may we not believe, there are cases, in which, at some particular crisis, the very *look* of the attendant may turn the scale for life or death? By cheerfulness I would not be understood, that levity, by which the sick can see at once, we are not deeply interested in his wel-

fare; but are trifling with him; but that confident and cheerful aspect, which at once imparts confidence and hope in the mind of the patient.

But how, it may be asked, shall we appear when we know there is no hope in the case? Shall we be cheerful then? I answer, yes. I would not be understood that we should encourage our patient to hope when there is none. If my case were hopeless, I should wish to know it. But should we not be cheerful even around the bed of death? If he have evidence of a happy immortality, is there no comfort to impart? Should we not cheer him through the dark valley, and with confidence, too, when he is just entering upon those joys which "Eye hath not seen, nor ear heard?" And if he have no well grounded hope of happiness hereafter, can we not with cheerfulness encourage him to apply to that great Physician, who will receive the repentant prodigal, even at the eleventh hour? I am aware we are occasionally placed in a situation, in which it is difficult to know the exact course which wisdom and the best interests of our patient require. We know his case is exceedingly critical; but, at the same time, there is a degree of rational hope. He is exceedingly sensitive to impressions; and a little undue depression might destroy all hope at once. How shall we act? I have oftentimes found it difficult to decide. We should give full attention to the circumstances of the case. We certainly should give him all the advantage of what hope there is. And as to the danger, we must take into consideration the probable effect upon the system; and not lose sight of a preparation for eternity. We should pursue the course we should wish pursued with us, were we placed in his situation. Above all, we should ask wisdom from him who is able to direct. But whatever information of danger we impart, it should be done with that kind, sympathetic, and cheerful manner, which will at once soothe and comfort, while it communicates a painful truth.

I spoke of confidence in our intercourse with the sick. We should have confidence in ourselves, and let our patient see and feel it. If he perceive, or even *mistrust* that we have not full reliance on our own judgment and skill, his confidence in us, of

course, will at once be destroyed, and our prospect of doing him good, greatly diminished. We have *no right* to enter upon the practice of our profession, unless we are so qualified that we can appear before the public, with confidence in these qualifications. There are some persons who seem naturally to possess a hesitating and doubtful manner. They, apparently, hold their abilities in a doubtful scale. Such had better keep out of the profession. The sick want a confident arm to lean upon: not one vacillating and uncertain.

One more consideration, and I have done. If we would avoid disappointment, *we should fully understand the nature and seat of the disease we treat.* This, of course, involves a thorough and faithful preparation for the duties of the profession, perfected by experience and close observation. This, as we all very well know, lies at the foundation of our success. Without this knowledge, all is hap-hazard and uncertainty. We may do good; we may do harm. And with all our boasted knowledge, with all the facilities which this enlightened age affords, with all the experience which years of practice give; perfection in our ranks is not yet attained. But I believe there is encouraging progress. The thorough student, the close observer, the patient investigator, with the facilities which are now afforded, will attain to that correctness of diagnosis, by which he will seldom be subjected to that mortification and regret, which mistakes on this point occasion.

How exceedingly unpleasant, after bestowing the most assiduous attention, for days and weeks, perhaps, we find our patient none the better, but rather getting worse; emaciation increasing, strength diminishing, appetite gone, notwithstanding our best endeavors to raise the patient, by the use of *tonics* and *stimulants*, vegetable and mineral, of various forms and kinds. We wonder at our ill success; friends become uneasy, a consultation is proposed and effected. A further investigation is made. A secret fire had been raging, in the form of chronic or subacute inflammation in some important organ or tissue, which we had entirely overlooked, but had actually increased by our course of stimulation. An alterative treatment is instituted, with such local appli-

cations as seem requisite; while the former course is suspended. The disease gives way, the patient is restored. Are we all assured we have never made this mistake? If not, there are those who have known it made. And I have thought that the frequency with which *whisky*, and other *alcoholic stimulants*, are ordered, in this day of light and knowledge, might *possibly*, not only lay the foundation of intemperance, but prôve a source of the same evil I have described.

Another case in contrast with the above. A case of typhoid fever is under treatment. In an advanced stage of the disease, the physician finds a marked change in the symptoms. Delirium attends—the face is flushed—the head is hot—the temporal arteries throb—the pulse is frequent, but small, and perhaps wiry. He decides that inflammation of the brain has taken place; and he treats the case accordingly. He bleeds, gives an active cathartic. The next day the patient is worse—diarrhœa has supervened. The following day he sinks. Had the physician understood the nature of the case, that a *deficiency* of the nervous energy existed; requiring tonics, stimulants, and opiates he would very likely have experienced the pleasure of seeing his patient restored to health, instead of sinking through his mistake. Gentlemen, this is no vision of the fancy; such cases are too frequent.

I knew a consultation called, in the case of a gentleman who was suffering almost insupportable distress in the lower bowels. Inquiry was made with regard to urinary evacuation, and he was informed a little was frequently passed. The hand was laid upon the abdomen, and an enormously distended bladder, plain as daylight, revealed the nature of the case. The attending physician was requested to pass his hand over the part, and the truth instantly flashed upon his mind. The catheter, of course, placed the agonized patient in a new world. This, we should all say, was a gross mistake; yet it was a mistake of carelessness, and neglect of thorough investigation, rather than of ignorance; as it was made by a respectable practitioner.

But, as I said before, *perfection* in diagnosis does not exist in our ranks; and there are cases, the symptoms of which are so

obscure, that, with the most enlarged experience, joined with the most consummate skill, a correct decision cannot, with absolute certainty, be made. And although we deplore the many reprehensible mistakes made through ignorance or carelessness; still, I would be distinctly understood, that error in diagnosis does not always argue a want of skill even in an eminent degree. It is related that a former distinguished professor in one of our New England schools, had appointed the time for performing the operation of tapping, in the case of a lady, who was suffering, as was supposed, from ascites; when from some fortunate occurrence he discovered his error before the trocar was introduced; and eventually, parturition proved the true nature of the case.

In view of what has been said, and the vast importance attached to the point under consideration, I would especially urge its importance upon the young practitioner, not forgetting that we that are older, have yet much to learn at the same school. Much depends upon our habits of investigation. Many dislike the process. Some, perhaps, fear they shall be accused of want of promptness and decision, if they *stop and think*. They wish to attain that reputation, which some possess, of deciding at a glance, the case before them. We *should* aim at a promptness in decision. The safety of our patient, as well as our own reputation often demands it. But, we should aim at a *correct* decision; remembering always, that this cannot be attained but by thorough and patient investigation.

Gentlemen, we are engaged in a calling, important and momentous. Responsibilities rest upon us, weighty in the extreme. Let us be faithful to our trust, perform our whole duty to those intrusted to our care, and to the profession; and do all, looking to him from whom all wisdom emanates, for his blessing upon our labors. And, although we may experience the ingratitude of man, although a life of peril, of toil, and of anxieties is ours, we shall be abundantly compensated in the consciousness of doing right, and the smiles and approbation of our Heavenly Father.

LACERATED WOUNDS.

BY G. W. GARLAND, M.D.

LAWRENCE, MASS., June 12, 1860.

DR. WILLIAM W. BROWN, *Secretary of the New-Hampshire Medical Society:*

My Dear Sir,—Your letter of yesterday, containing an extract from the "Journal of Proceedings of the New Hampshire Medical Society" at its recent meeting, is before me, and in reply I will say, that as the remarks which I made at your meeting at Concord, on the 5th inst., on the Obliteration of recent Cicatrices, referred to in the vote of your Society, were made in connection with a very brief history of a case, in the treatment of which I took a deep interest, I will give some account of the case with the observations made on the result of treatment.

Jane Bradley, a healthy Irish girl, aged about seventeen, was at work in the Pemberton mills, on the second floor, at the time of the late calamity, and was thrown by some force (probably that of detached and revolving machinery,) through a double window, out upon the ground, beyond the reach of the crushing masses that fell in all directions. She was taken to the City Hall, where I dressed her frightful wounds. When my attention was called to her a friend was holding her scalp upon her head. On examination, I found the scalp cut or torn through on the top of her head, and the entire scalp had been turned down anteriorly and posteriorly, tearing it down over the left temple to the corner of the left eye, and over the right temple to the right ear. There

were several other rents or wounds on different parts of the head; one extending from the centre wound on the top of the head to the centre of the os occipitis; another divided the anterior flap quite down to the nose. There were several other smaller wounds, making in all, fourteen inches of distinct and separate rents and contused cuts exclusive of the centre wound; all of which extended through the scalp. The portion of scalp which I denominate the centre wound, was three and a half inches long and two and a half inches wide. This portion was literally crushed, and almost completely detached from the rest of the scalp.

The several parts were adjusted as well as could be in the haste of the time, by sutures and a bandage, when she was taken to her home. This occurred January 10th. On the 12th the dressing was removed, when the crushed portion upon the top of the head was found destitute of vitality. This was detached, the head shaved, and the wounds dressed with lint and adhesive plasters, removing the sutures as the straps were applied.

On account of the inflammation which followed, at many points, and the low degree of vitality in others, no attempt was made to bring the parts in any of the wounds in absolute contact until January 29th, when a slight degree of force was used in applying the straps. This was daily increased, but such was the character of the wounds that but one of them healed without having a cicatrix, of from two to four and six lines wide.

After the surrounding wounds had healed, and a portion of the cranium under the centre wound, one by two inches, had exfoliated, very strong efforts were made, twice a day for three weeks, and once a day for several weeks, to close the scalp over a granulating surface of eight square inches. As the opening was somewhat oblong, the straps were put on crossing each other, drawing upon the four sides. In doing this, all the cicatrices which had formed before, came under the influence of the adhesive straps as they were tightly drawn over them, and I very soon noticed that they daily diminished in size, and in a few days some of them were reduced to a mere seam, without any elevation.

Being encouraged by the result of the smaller wounds, I continued the use of the straps upon the cicatrix upon the top of the head of one and a half inch by two inches in extent, until it was reduced to the size of a ten cent bit; and this, I have no doubt might have been wholly obliterated, had sufficient time been taken. The wounds or rents, for they were evidently torn, through the integuments of the forehead and over the left temple, although they healed by granulation, cannot now be seen unless particular notice is taken. These wounds were probably made by the strong sash of the double window through which she was thrown.

Wounds upon the face, neck, and hands, often leave ugly scars, from the fact that during cicatrization the parts are too sensitive to allow their edges to be brought together In all such cases the above hint will be found of great value.

The principle long since established, that "pressure promotes absorption," is plainly illustrated in the diminution of a recent cicatrix, under the use of adhesive straps. The tissues on either side of the cicatrix being of a firmer and more solid texture, by causing them to press against the new and tender organization, condensation and absorption of the cicatrix is as sure to follow as two teeth will cause the absorption of an intervening alveola process, when they are made to press upon it.

A more minute history of the case of Miss Bradley would be interesting, but as my only object in referring to the case, is to explain the inception of the idea of the obliteration of recent Cicatrices, by the use of adhesive straps. The profession will excuse this brief account. The straps, I should add, have been discontinued in Miss Bradley's case for four or five weeks and no extension or widening of the cicatrices has yet occurred.

My observations on the healing of *lacerated* wounds by the first intention, date back some six years; prior to that time, I dressed all wounds, not incised, according to the popular notion, that "it is good to wrap a bruised wound up in the blood," that is, dress the wound immediately, and if the dressing becomes saturated with blood so as to render it impervious to air or water, it was all the better for the case.

In manufacturing cities and towns, physicians are frequently called to dress this kind of wound, under consideration, and I have often noticed that a very unpromising case thus dressed, would now and then heal by the first intention, or without suppuration. This led me to attempt an investigation of the matter.

Absolute contact of divided parts is necessary to union by the first intention. Nothing should intervene, not even globules of blood. When all bleeding has ceased and the parts are varnished over with plastic lymph, it matters but little whether the surfaces to be united are perfectly smooth or not, so long as nothing that may act as a foreign body is left between them. Parts that have no immediate relation to each other will unite as kindly when in a proper condition as parts simply incised, and parts that cannot be brought in absolute contact will unite by granulation with little or no secretion of pus, if proper care be taken in the dressings.

I will report a case to illustrate my idea, which occurred in my practice since I was at your Medical meeting. A lad some ten years of age, while running at full speed, tripped and fell, striking his right knee against a "sharp stone" which made an ugly looking wound, on the inside of the knee joint, two inches in length, with very ragged edges. The bleeding was slight, but an oozing continued over an hour.

In this case as in all others of a like character, when I can spare the time, I manipulated the parts gently as long as I could make it bleed, and then after clearing the wound of *every particle* of blood, closed it with very narrow adhesive straps. Upon the straps and over the wound I placed a bit of sheet lint, smeared with simple cerate. Over this a few turns of bandage were put, and absolute rest enjoined. The bandage and lint were removed daily, for four days, when the straps were removed and the entire wound was found to have united by the first intention, with the exception of a very small point in the centre where the parts could not be made to touch without producing a "pucker" in the lips of the wound; but this was granulating without the secretion of pus.

In my judgment, the idea of very narrow straps is of the

utmost importance, for, if in applying them, globules of blood should escape from any of the severed vessels, they will find a ready exit from the wound between the straps, which should always be applied a little apart, with that view. The lint and cerate are of great benefit as they are soft and unstimulating, and effectually keep the stimulating influence of the air from the wound; but they should not be allowed to remain on over twenty-four hours without changing, as the cerate is liable to become rancid and irritating to the wound.

From this hurried account of a case of minor importance, you can gather my idea of dressing lacerated wounds, viz: *Wait* until all bleeding has ceased, manipulating the part the while, if the bleeding is not profuse, or producing pressure upon the parts by means of foundation muslin; if the bleeding be free through the muslin, of which the globules of blood will escape and not coagulate in the wound, then apply narrow adhesive straps, as in incised wounds, and then protect the part from the irritating influence of air, motion, and a depending position. Under such treatment, lacerated wounds it will be found will unite by the first intention, in a majority of instances, and heal without suppuration taking place, in eight cases out of ten, when the wounds are not large.

REPORT

ON PRACTICAL MEDICINE.

BY T. H. MARSHALL, M. D.

FELLOWS OF THE NEW-HAMPSHIRE MEDICAL SOCIETY:

In attempting a report on Practical Medicine, the writer would fain discharge an honorable obligation to this society, which he had no opportunity to decline, but which he is conscious of no special fitness to execute. The difficulty of giving at the close of the year the actual *status* of practical medicine, or even a retrospect of the annual progress of our art has been felt by all who have essayed it. I shall not undertake the task.

It has been usual for committees on this subject to give a history of Epidemics occurring within the current year, and also bring to view such new medicines as may have been introduced, or new applications of old remedies as may have been made in the same period. This custom will be only partially conformed to. Some remarks on the general subject, with the consideration of a few topics only relating to diseases and medicines fall within my present design.

What *is* Practical Medicine in 1860? What in the present state of medical science, and what with approved therapeutical agents, is now *practical*, are questions which, as practitioners of the healing art, especially concern *us?*

The true answer lies between the extremes of popular opinion. Every thing, surely, cannot be done in the removal of disease, or the relief of pain which the ever credulous may believe, or the boastful pretender claim. Nor is the art of medicine that inert, negative thing, which the medical skeptic would have the world

believe. Nor yet, that uncertain thing, as likely to effect mischief as good, which the flippant sciolist asserts it to be. The wants of suffering humanity, in this regard, are in part supplied. Rich stores of medical truths have been accumulated, and medical philosophy is hard at work classifying and arranging them. Our science is not complete, but in hopeful progress. Its principles are in part ascertained and its laws in part determined. Some conclusions can be safely drawn, some results surely predicated.

The science of structure has been so revealed through anatomical and pathological researches, aided by the microscope, as to throw a steady and guiding light over this domain of the physician and surgeon.

Functional science, though less advanced, has some clearly illuminated spots, where accurate observations can be made. From these as fixed stand-points of departure and return, the physiologist will extend his explorations till this department of nature shall be surveyed. Then more fully than now, physical laws, chemical affinities, structural organism and the vital forces will be seen, each playing its part and harmonizing in universal health,—health, with symmetry and activity of body, clearness and vigor of mind. Then too diseases, whether of morbid structure, or deranged function, being fully apprehended, can be prescribed for and treated with more directness and certainty. Thus our animal mechanism, that "harp of thousand strings," will be repaired and attuned with something of scientific accuracy and artistic skill.

The actual progress of practical medicine is not to be estimated by the number of articles annually added to the materia medica, or the new modes of applying old ones within a given period.

True service is as surely done to the profession by discharging the mischievous, the inert and the less reliable substances, called medicines, which have been heaped upon the shelves of the apothecary, during the past ages of comparative ignorance and darkness.

It is a laudable work to add to the *material* for combating disease, and such contributions should be encouraged, proved, and

the valuable adopted. Rich acquisitions have been made within the last few years. Medical botany has been studied with enthusiasm. Successful attempts have been made to "extract and concentrate" the medicinal virtues of many substances. Articles inconveniently bulky, or nauseous and distasteful, have been deprived of their objectionable qualities. The materia medica thus "enlarged, improved, and corrected" is fully available.

To this ample magazine, the true physician has free access. No narrow, *exclusive system*, no *despotic theory*, with flaming sword, or authorative edict, forbids his touch. All are his freely to use and from which he may equip himself with "proved weapons" for the conflict to which he is called.

The vegetable, the mineral and the animal kingdoms all contribute their therapeutic stores. From them the *representative physician* of the present day, having made a careful, but not numerous selection of articles, enters upon his mission and engages in its ordinary duties. If anomalous cases occur, or peculiar idiosyncrasies present themselves, he has still an efficient reserve at his command and can vary his remedial means almost at pleasure.

Such is the state of medical knowledge and such the present resources of the untrammelled practitioner of medicine.

What then, has community a *right* to expect of him, and what can he *honestly* promise the sick? Premising always a thorough medical education, it has a right to expect, first, a careful examination of every case committed to his care, according to the most approved methods, and as accurate a diagnosis as the nature of the disease, in the present condition of the science, will admit; secondly, a judicious and discriminating use of the best curative means. If an opinion of the nature or probable result is required by those who have a right to prefer such a request, it should be *truthfully* given, as far as it can be safely done.

No person is *fit* to be trusted with the care of the sick, involving as it does almost every other interest present and prospective, who has not *a character for general honesty and faithfulness* which would command confidence *in any other business*. With skill and

such a character, the true relations between doctor and patient are easily adjusted. The one with child-like faith and hope yields himself to the will of his medical attendant; the other, requiting the precious trust with almost parental anxiety, watching every changing symptom and ministering promptly to each recurring want. Such relations being established, all that medical art can do, may be *promised* and *expected*. *Alleviation of suffering*, more or less, always; or a *cure* generally.

Community ought better to understand the causes of diseases, the nature of medicines, and the true province of the physician.

Disease is not a midnight assassin who has entered our domicil with a full intent; nor is medicine a bludgeon in the hands of the doctor with which he can be knocked down at a blow, or killed by repeated strokes;—though something *like this* would sure to represent the popular idea.

When the once stanch ship no longer rides buoyant and erect, but rolls and plunges and sinks in its own native element, refusing to obey the rudder or heed the helm, the charlatan captain may indeed, trumpet-mouthed, give out his discordant orders, abuse his men and destroy his cargo; or Xerxes like, with impotent rage, lash the ocean or throw fetters into its proud waves. Of what avail? *To ignorant passengers he seems, indeed, to do something.* Not such the course of the well skilled mariner. Calmly he surveys every danger, quietly repairs every accident, stops the leak, adjusts the ballast, reefs the sails, squares the yards, puts all to right, strikes out for sea-room and gallantly outrides the storm. An imminent peril has been passed. No omnipotent voice bade the waves "be still." All damage even, was not avoided. But skill, *skill* equal to every emergency, saved the vessel, and in due time made her sea-worthy again.

The above illustration may serve to shadow forth the physician's sphere of action in numerous instances. His part is to act the good pilot. He is to stoop to undo the heavy burdens imposed by sickness, to serve as the handmaid of recuperative nature. His is a noiseless task. He touches strings whose vibrations are scarcely audible, but full of significancy for life or death.

In most cases the causes of disease are beyond his control. It is with the plague let loose, that he has to contend. To oppose this, he has few if any means at command *directly curative* in themselves. *Such* is not the *way* medicines operate. But they may be used to do good. And the office of the physician is none the less important, or his services less valuable for being less pompous or heroic.

Some diseases are *self limited* in their nature. When established, they must have "a run." Their symptoms may be mitigated, their period of duration may be shortened. It is folly to attempt *direct cure*. Small-pox may be rendered milder. Hooping-cough may (probably) have its term abridged. Fever and ague, if falling within this class, may have its period "cut short."

Other cases are dependent on temporary or cognizable causes and the physician's power is more remedial and direct. The removal of irritating ingesta may *cure a colic* or prevent *a cholera*. Nature relieved from embarrassments tends to restoration.

But it is as a conservator of health that the physician renders, perhaps greatest, yet least appreciated, service to his race. Practically he should be a teacher of physiology and hygiene. It is his legitimate business to make known the laws of life. Prevention is better than cure. The apoplectic who is deprived of his hearty dinner is *better treated* than he who is bled till he recover his senses. Common sense has no better applications than to medical matters. It is to be hoped that *practical medicine* is not only being better understood by the profession but that some light is dawning upon the public mind,—that the "good time is coming" when doctors *can deal honestly* with their patients without the risk of being "turned off" to give place to some boastful pretender,—when the temptation, even, to mystery and concealment shall be no longer supplied by popular prejudice and misconception.

Among the diseases prevalent the past year, diptheria has attracted special attention.

Medical journals, both in this country and Europe, have teemed with articles detailing its ravages, describing its symptoms, spec-

ulating upon its pathology and discussing its treatment. By some it has been regarded as a new disease. The general testimony of writers is, however, adverse to this opinion. An *old* acquaintance is recognized under a *new* name. What our medical fathers described as "*putrid sore throat*," was singularly like the modern "diptheria," if not identically the same disease. May not its frequency and peculiar manifestations be owing to the same causes, which for the last half century have been giving to most diseases a more *asthenic* type?

Bretonneau, a physician of Tours, France, about thirty years since, separated this disease from its kindred affections and named it "Diptherite," from the resemblance of the membranous exudation to the inner or rough surface of leather. With him *the character* of the false membrane was the distinctive feature of the new disease. He says, "the supposed sloughs are not portions of gangrenous mucous membrane, but exudations upon its surface," seldom eroding the subjacent tissue. In this he seems not to be closely followed by more recent writers, as sloughing ulcers and aphthous crusts appear in their descriptions. Indeed, "Diptheria" has become a *fashionable name*, and analogous if not anomolous diseases are being gathered under it.

With our present knowledge of the pathology of this affection, lines of distinction cannot always be accurately drawn, even if they exist in nature. Nor is it, perhaps, practically necessary for successful treatment. The general condition of the patient can be understood without, and upon constitutional remedies must we place our main reliance.

Diptheria is usually unattended by any eruption or even temporary efflorescence of the skin. Many of its symptoms are common to scarlatina, especially when of malignant type. Indeed, it is described as often coexisting in the same neighborhood and family, if not in the same person. Such facts have led some to suppose that these diseases, with erysipelas and perhaps some others, depend on the same causes, the same *poison*, whatever its nature or source, and that the *form* of developement is controlled by unknown circumstances.

It is regarded as both epidemic and contagious; sporadic cases also frequently appearing. It occurs at all seasons of the year and in every variety of location and condition of society. Like most anginose affections, it attacks particularly the young, but is by no means confined to that period. Its precursory symptoms and mode of attack vary much. Generally, febrile indications exist, with swelling of the throat, pain and difficulty of swallowing. These may be all wanting and the first intimation of a local disease, is the discovery of the membranous exudation by inspection. Pain in the ear has been noticed as an early and pathognomonic symptom. This was especially the case in an endemic of great fatality, which occurred in Orange, Conn., last spring, as described by Dr. Beardsly. As seen by some, the mind has suffered in almost every instance; as witnessed by others, almost never. The appetite may be almost unimpaired, or lost entirely.

The type of fever is more uniform and always of a low typhoid character. The pulse generally quick is sometimes preternaturally slow and always feeble. Sudden deaths frequently occur in cases which seem mild and even when supposed to be convalescing. The prognosis should therefore be guarded.

Confessedly obscure as the etiology of this disease still is, the indications of treatment are so plain as to lead to considerable uniformity of practice. Nutritious diet, stimulants and tonics constitute the general treatment of many in *all* stages of the disease, and by all in the later periods. Local applications are more variously regarded. Nitrate of silver is considered "indispensable" by some. Others depend mainly on acid or astringent gargles; while others, again, employ only the mildest mouth washes, and warm inhalations. External irritants to the neck are generally regarded of doubtful utility, in some cases they have obviously proved hurtful.

Among the internal remedies most approved, we notice sesquichloride of iron, (tincture of murate of iron) as perhaps the best. Quinine, chlorate of potash, ammonia, myrrh, guaiacum, spirits of turpentine and the mineral acids may be usefully employed in given circumstances. Beef-tea, milk, and other articles to sup-

port the strength, should be *freely* used, and wine and alcoholic stimulants as required. Bourbon whisky is by some considered almost a specific.

A curious theory has been advanced by some microscopic observers, that the false membrane in diptheria is really a "parasitical fungus," and that the "disease of the vine" and "potato rot" may have the same or a similar origin. Dr. Laycock remarks, "one thing, however, is certain, that the parasites of the potato vine, apple, and silkworm, all prevailing simultaneously—are almost identical with the oidium albicans; and considering how readily a slight difference in the form of these minute organisms may be induced by differences in the food or habitat, it is probable that they are really identical in origin; and this coincidence if spread, cannot but awaken a strong suspicion as to the relationship of the cause of diptheria, to that of the epidemics of the silkworm, vine, potato," &c.

I have given prominence, at this time, to the subject of "Diptheria," partly from the weekly evidence of its increasing prevalence in our country, and the fearful mortality attending it; and partly because diseases of the mouth, throat and lungs, all in intimate connection and sympathy, are among the most common and important which we are called upon to treat, and especially *deserving* a careful investigation.

The almost unparalleled spread of small-pox over New-England the past year, seems to render this disease worthy a passing notice.

I am not aware that the late epidemic possessed any peculiar malignancy or contagiousness. Probably its prevalence was mainly owing to a neglect of proper preventive measures. The sick, in most cases, were not isolated as formerly. Vaccination has either been neglected altogether, or very inadequately performed. Two causes have greatly contributed to bring vaccination into disrepute. Doubts as to its preventive powers;—fears that it may introduce other diseases.

"No human discovery," says Dr. Hayward, "can compare in value with that of vaccination. It is substituting a mild affec-

tion for a loathsome, painful and most destructive malady." Dr. Baron says, that "from authentic documents and accurate calculations, it has been ascertained, that one in fourteen of all that were born, died of small-pox" before inoculation and vaccination.

The United States report on "Indian Affairs," for the year 1837–8, says, small-pox swept away whole tribes of these unfortunate people; that of the Sioux alone 17,200 died of the disease. In 1853, nearly 12,000 of the confederated bands of the Sioux and Omahas died of the same terrible malady. Such is *unmitigated small-pox.*

Vaccination *can* disarm it of all its horrors. True, it does not protect all, *absolutely*, against varioloid. Neither does *inoculated* or even *natural small-pox.*

Dr. Cross mentions, "two clear cases of regular small-pox, the one after the natural, the other after the inoculated disease." Other writers, also, speak of "secondary small-pox."

Dr. Jenner, its immortal discoverer, held that vaccination "duly and efficiently performed, will protect the constitution from subsequent attacks of small-pox as much as that disease itself will. I never expected it would do more, and it will not, I believe, do less." The venerable Dr. Jackson, of Boston, one of the first to introduce it into this country, says, "persons who undergo the cow-pox are thereby rendered as incapable of being affected by the virus of small-pox, as if they had undergone the latter disease."

Dr. Thompson, of Edinburgh, remarks, "proofs cannot be imagined more convincing and satisfactory of the efficacy of the practice of vaccination, than those I have had the pleasure of witnessing." With such testimony to the protective power of *well performed vaccination*, confirmed by all careful observers, it would seem that popular prejudice hence arising, should no longer hinder its universal adoption.

The second objection, the danger of transmitting other diseases by vaccination is sustained by some plausible facts. New diseases have undoubtedly appeared *soon after* vaccination. But were they *introduced* by it, or only *educed*, being latent before, by the

constitutional change thus wrought? Or more probable still, mere accidents as regards time and connection. Surely, such a boon to mankind *ought not* to suffer from vague suspicions. But what is the rebutting evidence in this case?

Dr. Channing, of Boston, in a late communication remarks: "In a recent visit to Dr. James Jackson, I asked if he had met with any instances, and how many, of diseases of any kind being introduced by vaccination. He said he had never met with an instance." Here is the testimony of a careful and accomplished inquirer, to a most important fact in the history of vaccination. Here is the testimony of sixty years to the entire safety of vaccination. To this, Dr. Channing adds a half century's observation to the same effect.

To fully appreciate the value of this testimony it is important to remember, that Dr. Jackson's observations cover the whole period since its practice in this country. As might be expected, it had *to force* its way through ignorance and public prejudice into general favor. This very objection had to be met by its early defenders. They were *compelled* to be careful observers.

But though all danger from this source could be positively disproved, the same care would be proper in selecting and keeping the virus; employing only competent persons to use it, and requiring all such faithfully *to see to it* that every case is genuine.

The late unfortunate cases at Westford, Mass., clearly point to increased attention to all the facts and circumstances connected with vaccination.

Many interesting questions invite further examinations. We suggest a few. Is there any intrinsic advantage in using fluid virus over the scab? Is every part of the scab equally efficacious and safe? Is mere age any objection to vaccine matter, provided its activity is not lost? Is *re*-vaccination ever necessary when the first is a true case? Is there any danger attending it which does not belong to the primary operation?

Dr. Husband's method of preserving virus by means of capillary glass tubes hermetically closed, is declared to furnish beyond comparison the easiest and most expeditious means of taking

lymph for present and future use. It has been proved to retain its activity for several years. It certainly promises to be one of those real improvements ever so welcome to our profession. Dr. Cutter, of Woburn, Mass., and several other American writers have made very valuable contributions in this department of medical literature the past year.

The treatment of neuralgia and other painful local affections by subcutaneous injections, is one of those "new things" which will doubtless receive all merited attention.

It was my original purpose to briefly introduce to the notice of this society, a few other topics. But, although the subject is inexhaustive, human patience is not, and I have rather to ask your favorable indulgence to what I have written, prepared under circumstances of more than usual difficulty and professional interruptions.

REPORT OF THE DELEGATES

APPOINTED BY THE SOCIETY TO ATTEND THE MEDICAL EXAMINATION AT DARTMOUTH COLLEGE.

The undersigned, having been appointed to represent this Society at the medical examination of Dartmouth College, repaired thither on Monday, November 7, 1859.

Eighteen candidates were examined singly for the degree of Doctor of Medicine.

After a most critical examination in the various branches of medical literature, in which they gave gratifying evidence of an extensive and thorough knowledge, as well as accurate, scientific and practical instruction, they were all admitted, with the approbation of your delegates, to the honors of the profession, and received their diplomas.

Your delegates were highly gratified to find the institution so abundantly supplied, in all the departments, with choice specimens, preparations, models, and drawings,—all of which are annually receiving such additions as the advance of science renders needful. The anatomical cabinet has long been extensive. In the department of general pathology the cabinet is very large, comprising wet preparations and casts. It is confidently believed that no school in the country excels this in teaching pathology, a new method having been recently adopted by which illuminated diagrams are thrown upon a screen, so that a whole class may see them at once. The cabinet of surgical pathology, illustrating fractures, dislocations, and tumors, is very extensive. In obstetrics, also, the preparations are numerous and rare. The specimens illustrating the different stages of development of the fœtus,

are quite complete. The museum of materia medica and medical botany is so large as to occupy a large hall in the medical college, and the specimens are arranged in classes, orders, and species, all available for illustration. The chemical department, in charge of the present able professor of chemistry, affords advantages for students not surpassed by any college in our country.

A large number of surgical operations are performed before the class, each member being called upon to assist in turn. A hospital under the care of the professor of surgery, was opened four years ago for the treatment of patients in general, and especially those operated upon before the class; here clinical instruction is given to some considerable extent.

The strict system of registration adopted by this institution more than twenty years since, and the requirement of certificates of the full term of study from some regular practitioner, although it may have diminished to some extent the number of students, has tended greatly to elevate the standard of medical education and the character of the graduates.

In conclusion, your delegates take pleasure in saying that, in our opinion, the New-Hampshire Medical Institution, under the care of its able and efficient board of directors and instructors, is worthy the continued patronage of all friends of medical education.

A. H. ROBINSON, M.D.
L. M. KNIGHT, M.D.
Delegates.

OBITUARY NOTICE OF HENRY BOND, M.D.

BY DR. CHADBOURNE.

To the increasing catalogue of names of the worthy members of our Society, who are in such rapid succession passing from us, we have now to add that of HENRY BOND, a former resident of this city, and at the time of his death an honorary member of this society,—again reminding us of the imperfections of our art, and that however successfully we may for a time arrest the progress of disease in others or mitigate its sufferings, we must ultimately, ourselves, stand in the common lot, and equally with all our patients, succumb to the fell destroyer.

Dr. BOND's death was the result of disease of the heart, of slow progress and many years' standing. The first three years of his practice we were neighbors, side by side, in this city.

In 1819 he removed to Philadelphia where, fortunately, a wealthy New-England man became his patient, and by will left him a handsome property, thus relieving him at once from all pecuniary anxiety and free to indulge his taste for study, which he followed, no doubt, to the injury of his general health.

In reply to my inquiry, two years before his death, in regard to his business, he said he was living on the *literature* of the profession rather than its practice, of which it might be better for us all, if we had less of one and a little more of the other.

The first two or three years of the practice of any young man don't enable him to make much of a mark in his profession, yet after leaving here, during a forty years' residence in Philadelphia, he acquired a wide and honorable reputation, not only in his own profession, but as a man of science and an able writer, by which many of the medical periodicals of the day have been enriched. His most favorite study of the last years of his life was *genealogy*, and he has, it is said, left a large unfinished work on this subject,—the personal history of New-England families that will probably yet be given to the public.

The doctor was an honorary corresponding member, it is said, of many of the historical societies, and was held by all of them, as well as by our own medical society, in high respect, from which he never removed his membership; although his great distance and feeble health precluded the possibility of but seldom meeting with us.

Dr. BOND was a native of Massachusetts, a graduate of Dartmouth College, and died at the age of sixty-five.

THE

TRANSACTIONS

OF THE

New-Hampshire Medical Society,

(SEVENTY-FIRST ANNIVERSARY)

HELD AT CONCORD, JUNE 4 AND 5, 1861.

CONCORD:
PRINTED BY McFARLAND & JENKS.
1861.

THE

TRANSACTIONS

OF THE

New-Hampshire Medical Society,

(SEVENTY-FIRST ANNIVERSARY)

HELD AT CONCORD, JUNE 4 AND 5, 1861.

CONCORD:
PRINTED BY McFARLAND & JENKS.
1861.

PROCEEDINGS.

TUESDAY, June 4, 1861.

The seventy-first Annual Meeting of the New-Hampshire Medical Society was held at the City Hall, in Concord, June 4 and 5, 1861, J. C. EASTMAN, President, in the chair.

The record of the last meeting was read by the Secretary. The following named gentlemen were recommended by the Council, and unanimously elected Fellows of the Society:

Edward Aiken, M. D., Fitzwilliam.
William Darling, M. D., Sutton.
Charles B. Willis, M. D., Salisbury.
James Moore, M. D., Concord.
Sylvester Campbell, M. D., Sanbornton.
George H. W. Herrick, M. D., Enfield.

J. M. Harper, M. D., Canterbury, Jason H. Ames, M. D., Bradford, were elected honorary members.

Voted, That a committee of five be appointed to examine patients.

The following named gentlemen were appointed:

Drs. Smalley, Stackpole, Sargent, Crosby and Fitch.

The following named gentlemen were appointed a committee on nominations:

Drs. Shackford, Moulton, Clough, Crombie, Twitchell, Carr, Roberts, Swett, Bunton and Tenney.

The following named gentlemen were appointed a committee to audit the treasurer's account:

Drs. Hill, Whittemore and Bean.

At 12 M. the President delivered the Annual Address, which was referred to the Committee on Publication.

Dr. Twitchell introduced the recommendation of the Amer-

ican Medical Association, with reference to the erection of a monument in Westminster Abbey to the memory of John Hunter.

Voted, That a committee of five be appointed to memorialize the Legislature, at its coming session, for the passage of a law making a physician's certificate of vaccination an indispensable condition of admission as a pupil to any public school in every town in New-Hampshire which shall vote to adopt the provision.

The following named gentlemen were appointed a committee:

Drs. Thayer, Robinson, Davis, Carr and Wight.

Moved by Dr. Hill, and voted by the Society, that the Secretary be requested to insert in the list of Presidents the name of Dr. J. S. Fernald, accidentally omitted.

Voted, That a committee of three be appointed by the chair to make honorable mention of those members who have deceased within the last year.

The following named gentlemen were appointed:

Drs. Fitch, Fernald and Carter.

Resolved, That the Treasurer be and is hereby instructed to collect five dollars of all members of this Society, who are in arrears that amount or more. That the balance be remitted, and their membership continued. And also that those persons who have lost their connection with this society, by reason of non-payment of dues, be notified that the payment of the above sum will reinstate them in the society.

The resolution passed unanimously.

Adjourned to 3 o'clock P. M.

AFTERNOON.

Met according to adjournment, Dr. E. K. Webster in the chair. Listened to the report of the Nominating Committee, as follows:

President—E. K. Webster, M. D., Boscawen.

Vice-President—C. P. Gage, Concord.

Secretary—A. A. Moulton, Concord.

Treasurer—L. M. Knight, Franklin.

Councillors—A. A. Moulton, L. W. Peabody, L. C. Bean, T. H. Currie, John Clough, C. H. Shackford, J. C. Hanson, W. H. Thayer, S. Cummings, N. Tolles, J. L. Swett, A. F. Carr, J. F. Hall, I. W. Lougee.

Censors—John Wheeler, H. B. Fowler, Nathan Call, G. W. Martin, Adams Moore, Valentine Manahan, Luke Miller, E. H. Davis, T. J. W. Pray, D. S. Prescott, Nahum Wight.

Committee on Surgery—W. H. H. Mason.

Committee on Practical Medicine—J. B. Abbott.

Committee on Epidemics—W. H. Thayer.

Committee on Obstetrics—F. P. Fitch.

Committee on Publication—A. A. Moulton, W. W. Brown.

Committee on Arrangements—A. A. Moulton, L. M. Knight.

Orators for 1862—J. P. Whittemore, Thomas Sanborn.

Substitutes—L. W. Peabody, Nathaniel Tolles.

Delegates to Dartmouth Medical College, S. W. Roberts, L. W. Peabody.

The report of the Nominating Committee was accepted by the Society, and voted unanimously to receive all the names as one ticket. Elected.

The report on surgery was called for, and read by Dr. Twitchell, of Keene, followed by a report on practical medicine, by Dr. Robinson, of Concord, and an oration by Dr. Moulton, of Concord. The above papers were all referred to the Committee on Publication.

The following resolution passed unanimously:

Resolved, That the Treasurer be authorized to borrow, on the faith of the society, a sum sufficient to liquidate the debt now standing against it.

A report on obstetrics was read by Dr. Davis, and referred to the Committee on Publication.

Adjourned to eight o'clock to-morrow morning.

WEDNESDAY, June 5.

Met agreeably to adjournment, the Vice-President in the chair. Miscellaneous conversation upon medical subjects.

On motion of Dr. Twitchell, of Keene, a committee of three, consisting of Drs. Eastman, Tenney and Robinson, was appointed to make investigation relative to the "Bartlett

Fund." Said committee to report at the next meeting of the society.

The Report of the Committee on Examination of Patients was read by Dr. Sargent, and accepted by the society.

The committee appointed to make "honorable mention" of deceased members of this society, reported the following resolutions:

WHEREAS, through a dispensation of Providence, five of the Fellows of this society have been removed during the last year by death: viz., Drs. John Carr, P. P. Woodbury, W. B. Stevens, Jesse Merrill and Thomas W. Wilson; therefore

Resolved, That the society deeply regret the death of so many of their numbers, and, while they deplore their own loss, they would express to the several families of the deceased their sincere and heartfelt sympathy.

Resolved, That we hold in high respect the character of Dr. Carr, as a man and physician. He was the oldest member of our society, and no one labored more faithfully to sustain it. While living he was always to be seen punctually at our meetings, and was ever ready to take a part in their exercises, to the great satisfaction of all. Of sound judgment and great practical good sense, he possessed peculiar powers of adapting himself to every exigency that might occur in the profession. It is sad to think we shall see and hear him no more.

Resolved, That the decease of the lamented Woodbury makes a wide breach in our society. In his death we have many of us lost an intimate friend, and, in common with the community, we mourn the departure of an energetic and practical physician, a talented and earnest man, and an exemplary christian.

Resolved, That we deplore the loss of Drs. Stevens, Merrill and Wilson, as Fellows who did honor to our profession and were an ornament to our society. Dr. Stevens' death will be especially felt. He was widely known, and endeared to many by the ability and fidelity with which he discharged every duty during his long connection with the New-Hampshire Asylum for the Insane.

Resolved, That the Secretary be requested to forward to the several families of the deceased a copy of the above resolutions.

Report of the Delegates appointed by the State Medical Society to Dartmouth Medical College.

The undersigned, appointed at the last Annual Meeting as Delegates to Dartmouth College, were present at the Medical Commencement at the close of the course of lectures, and attended to the duties assigned them.

The candidates for medical honors presented themselves singly, each Professor interrogating upon those branches taught by himself. Your delegates listened to and participated in all these examinations, and obtained the most gratifying evidence of the thoroughness of their instruction, by the familiarity evinced on the part of the candidates in the principles of medical science.

The several departments of the institution were found in a highly satisfactory condition, being replete with choice and rare specimens, models and drawings. The anatomical cabinet is quite perfect, and the wet preparations and casts in the department of general pathology are numerous, full of interest, and afford eminent facilities for imparting definite and accurate knowledge. The same may be said of the cabinet of surgical pathology, while the museum of materia medica and medical botany is presumed to be unsurpassed in the extent, variety, beauty and perfection of its specimens. The obstetrical and chemical departments are abundantly furnished with every thing requisite for demonstrating to the eye what is taught to the ear.

Important and varied surgical operations come frequently before the class; and a hospital, located a short distance from the medical building, is open for the reception and treatment of general and surgical cases. This is under the care of the Professor of surgery, who, having at command every needful appliance, is prepared to give clinical instruction of the greatest practical value.

With an able board of teachers, rich in experience and deeply imbued with a spirit in consonance with the dignity and importance of our profession, alive to its interests and to the literary and moral character of its members, possessing aptitude to communicate, and having, in their several departments, every desired convenience to facilitate instruction and

illustrate science—we take great pleasure in commending this venerable institution to the fostering care and generous confidence of this society.

And to young gentlemen pursuing medicine, we can offer the most positive assurance that they may here obtain that knowledge, unmingled with error, which will eminently qualify them to become good and successful physicians.

JEREMIAH F. HALL, M. D.,
JOHN L. SWETT, M. D.,
Delegates from the New-Hampshire Medical Society.

PRESIDENT'S ADDRESS.

Fellows of the New-Hampshire Medical Society:

I have selected, as the subject of my address, on this our seventy-first anniversary, THE PHYSICIAN — HIS QUALIFICATIONS AND DUTIES.

MANY are the "ills that flesh is heir to," and the history of medicine must date back to that remote period when they were first felt in the human frame; for the first impulse upon the experience of pain is to seek some remedy for its removal or relief. But in the first and rude states of society, these efforts were, doubtless, very imperfect and often ill-directed. As civilization and social refinement advanced, efforts to alleviate human suffering, to remove internal disease, or to repair external injury, would naturally become more scientific and skillful.

Egypt was probably the first country where the healing art became a distinct profession; its practice, at first, being mostly confined to the priests, and connected with magical incantations, working upon the imagination of the people, and imposing upon their ignorance and credulity. Indeed, in Egypt and the Assyrian empire, and almost all the nations of the East, in their early history, their priests were the chief depositaries of knowledge, and that of the healing art among the rest. And yet their practice, as in those nations at the present day, consisted mainly in magical arts, mystery and superstition.

In tracing the history of medical science, we must quickly pass from Egypt to Greece, for it was here that it first assumed a systematic form. Here it was, before the Christian era, that Hippocrates, Chiron and Æsculapius became famous for their medical skill, and, as teachers of the healing art, were treated with divine honors — sort of demi-gods — and temples were dedicated to them, and schools of medicine there established.

And yet there is so much of fable and mystery and superstition mixed up with the history and the writings of these "early fathers" of medicine, that but little practical benefit is to be derived from them or their works.

From Greece we pass rapidly to Rome, where schools of medicine were established early in the history of the Roman empire, and a knowledge of medicine was considered a necessary part of a liberal education. The medical schools of Rome were the pride and ornament of "the city of seven hills," and rivaled those of Athens and Alexandria. Asclepiades and Galen were to Rome what Hippocrates and Æsculapius were to Greece. "Even for centuries after the death of Galen, his doctrines and tenets were regarded almost in the light of oracles, which few persons had the courage to oppose. In numberless instances it was deemed a sufficient argument, not merely against an hypothesis, but even against an alleged matter of fact, that it was contrary to the opinion of Galen." He was a prolific writer, and the number of treatises from his pen are estimated at about two hundred, embracing every department of medical science.

But with the decline of the Roman empire, the science of medicine also declined. When art and civilization degenerated, then the medical schools languished, and many of them became extinct in that long dark age, from the eleventh to the sixteenth century. During this long period, with the exception, perhaps, of alchemy or chemistry, every department of science fell into neglect, and that of medicine into degradation. What little there was of literature or medical science was in the hands of the monks, and they were grossly ignorant, and did what they could to keep others as ignorant and superstitious as themselves.

But with the invention of the art of printing, the consequent revival of letters, and the Reformation under Luther and his coadjutors, medical science was also revived. The study of anatomy and surgery and dissection now became a part of the medical profession. Books of medical science were now published. Schools of medicine were established throughout the principal cities of Europe. The healing art became a distinct profession — an honorable and a useful pro-

fession. Great discoveries have been made, and in our own country, at the present day, medical schools and medical books and medical societies are abundant. The facilities for acquiring a knowledge of medicine, and for becoming skilled in the healing art, were never greater than at the present day. Schools, hospitals, medical journals and books are within the reach of all.

What, then, are some of the qualifications and duties of physicians, in this our country, and in this last half of the nineteenth century?

I. First of all, then, a man needs to begin with—and, before he begins to begin to be a physician—good common sense—an unperverted reason—a sound judgment on the common, every-day affairs of life. Not genius—not *un*common sense—for those are abundant both in and out of the profession—but the genuine article—good common sense—a quickness of apprehension, and of the adaptation of means to ends—a sound, practical estimate of men and things in general. It is from a want of this that there are so many wretched failures—so many sad and fatal mistakes in our profession; and that so many, having begun to study the profession, and got a little, and but a little insight into the science of medicine, turn quacks and charlatans, to poison and scourge the community.

II. There is needed, as a prerequisite qualification to the study of medicine, a good education. Ours has always been reckoned one of the learned professions, and no young man should be admitted as a medical student who has not already a good education. I do not say that he must have graduated at college—have gone through with the prescribed course of college studies, and obtained his A. B. or A. M.; but he should have a well-disciplined mind, and well stored with elementary knowledge. Chemistry and botany and physiology and a good degree of knowledge of the Latin and Greek languages are indispensable to a successful prosecution of the study of medicine. The science of any profession must come before the art; theory before practice, and not by it. The physician must be an intelligent and a learned man; and he must know something more than the mere technicalities of his own profession, or he will not gain or hold the respect of the commu-

nity; and not having their respect, he will not have their practice—at least not that of the respectable portion of the community. True, a man may have some knowledge of diseases and of medicines, and know but very little else; but he will not be likely to have much practice, except among those who are as ignorant as himself. Nor will he be a skillful physician; knowing how to adapt himself to his patients, and his remedies to their numerous and ever-varying diseases. A young man who misspells in writing, who in common conversation "murders the king's English," who is ignorant of natural history and the higher branches of mathematics, who knows nothing of the classics and of the natural sciences generally, however much brass he may have, is not fit to enter a doctor's office as a student of medicine; and the doors of every office should be closed against such, and he should be sent back to the common school and academy, there to acquire the mental discipline and intellectual training and literary qualifications necessary to enter upon and successfully prosecute the study of medicine. And it is right here that our profession has suffered more than any other — the standard of literary qualification for admission to our offices and schools of medicine is not sufficiently high. Says a celebrated medical writer in the New-York Journal of Medicine: "In regard to remedies for the present defects in our system of education, first of all, and at the foundation of all, we place more care on the part of individual practitioners concerning the capacity and qualifications of young men whom they receive into their offices as students, and then more attention to their education after they are received. But no one can have failed to notice the almost total neglect every where apparent in this respect. Whoever takes a notion to study medicine — no matter if his primary education should not enable him to write his own name intelligibly, much less to understand a single branch of natural science, and his intellectual faculties naturally as dull as the sleepiest drone in the country — he is readily received into some doctor's office, shown a scantily filled case of medical text-books, and left to while away the time required by law, and then honored with the title of doctor. With no practical knowledge of chemistry or botany; with but a

smattering of anatomy and physiology, hastily caught during a sixteen weeks' attendance on the anatomical theatre of a medical college; with still less of real pathology; he enters the profession, having mastered just enough of the details of practice to give him the requisite self-assurance for commanding the confidence of the public, but without either an adequate fund of knowledge, or that degree of mental discipline and habit of patient study which will enable him ever to supply these defects. But he takes his degree, and plods on through life with a fixed routine of practice, consisting of calomel, antimony, opium and the lancet — almost as empirically applied as is cayenne pepper, lobelia and steam [and little pills] by another class of men. And how can this ever be otherwise, while medical students, without regard to their previous qualifications, are received into an office of a country or village physician, sent out to one or two courses of lectures, and then honored with the title of M. D.? This is a great and an all-pervading evil; and it is in vain to exert ourselves to elevate the standard of education in the profession until this difficulty, which stands at the outset, is removed; for, so long as the mill is supplied with bad grain, it will grind out bad flour. Indeed, so radical are the defects in our present system of previous qualification and education, and so glaring are their effects on the condition and usefulness of the medical profession, that no observing man will bring the charge of exaggeration against the foregoing statements."

The physician, then, should be, to begin with, an intelligent and an educated man. His education should be *liberal*—not in the sense of having received the honors of a university or college, but it should be generous, ample and large, not narrow or contracted. His mind should be free and quick to think and investigate and reason; fertile in expedients, and strong to grasp and grapple with any subject presented. Not a universal genius, for that is not desirable, but well and *accurately* informed in the primary and elementary branches of knowledge. The medical student should be one whose faculties have been already disciplined; whose mind has been expanded and quickened by an enlarged circuit of free and liberal study in the various departments of science. "A liberal education

and a college education are not in all instances precisely the same thing." A man may be liberally educated who has never "rubbed his coat against a college wall." Nay, he may liberally educate himself at his shoemaker's bench, or by the side of his forge and anvil; while he who has had all the advantages of a college, and there gone over a four years' course of lessons and lectures and examinations, and come out at the end with a college diploma in his hand, may have no education worthy of being called liberal. When such an one is compared with the one who, without the aid of a public institution, has, in the retirement of his home, perhaps, accurately studied men and things, books and nature, we must conclude that A. B. means "a boy," but A. M. can not mean "a man." Not that I would speak slightingly of honored titles; let them be fairly won, and meekly worn by all who wish for them. But the physician should be so liberally educated, both before he enters upon his profession and in the prosecution of it, that he shall *liberalize* his profession, and not sink it into a mere trade. His knowledge should be something more than the mere technicalities of physic and surgery, diagnosis and prescription. He is to come in contact with learned men — liberally educated men — of the other professions, or, it may be, of no profession — men of intelligence — men of large reading, of study and thought; and if the doctor be ignorant on literary and scientific subjects, and of literary and scientific men, they will be quick to detect this ignorance, and they will lose confidence in him as a physician; he will not have their patronage, nor practice, nor the practice of those where their influence reaches.

And the physician must not lay aside his books and studies when he begins to deal out medicine. He must be a student, always studying and always learning his whole life long. And he must read something more than a weekly newspaper and a monthly medical journal. He must keep up with the times; and if there is any new discovery, either in his profession or out of it, worth knowing, he must know it.

Liberally educated men in the different professions are related to each other, and there is a natural bond of union among all the professions. There is a certain range of learn-

ing common to them all. There are fields of thought which they have surveyed together, and in which they are still in various degrees fellow-students. They are acting continually, or ought to be acting, upon each other's minds, not only stimulating each other to a generous rivalry in the cultivation of their several departments of knowledge, but counteracting in each other the tendency to narrow and professional views of things. At the same time, that liberal education which they have in common, leads them to respect each other, and to acknowledge the value of each other's peculiarly professional learning. Thus the professions, connected by this bond of union, sustain and aid each other and promote each other's usefulness in society. A tendency to be imposed upon by medical quackery is innate with some men—fixed ineradicably in their constitutions—yet how rarely can a really educated man of any profession be counted among the customers of "steam doctors," "root doctors," "Indian doctors," and the like. As a general thing, an educated minister and an educated lawyer employ an educated physician, and, so far as their influence goes—and it often reaches widely and deeply in the community—others employ him also; while the ignorant and the superstitious, in their numerous ailments, usually employ some one to doctor them most like themselves. "Birds of a feather flock together." And hence it is that a regular, well-educated physician usually, I believe, prefers to sit with his family under the preaching of a regular, well-educated ministry; to secure, if he have a case in court, a regular and well-educated lawyer; and to employ and associate generally with the intelligent and well-informed.

And it is one of the distinctive duties of the physician, and in which he should endeavor to be conscientiously faithful, to uphold good order and wholesome law in the community in which he lives and practices. His moral influence should be healthy. He comes in contact with all classes of people. And he should be careful not to countenance vice and immorality in any of their numerous forms. It is a duty which he owes the community as a man and a citizen, as well as a physician, to strive to promote the moral health of the people, and to administer what antidotes he can against the moral poisons

with which they are infected. Hence he should feel a deep interest in sound learning and good morals. His influence should be felt for good in the common school, academy and lecture-room. Every good cause should feel that they have the doctor's countenance and support.

The Great Physician hath said, "the poor ye have always with you," and some portion of every doctor's patients are of those poorly able to pay for his services. To these he should be lenient. His attendance and medicine should be as cheerfully and faithfully given to the poor as the rich—and then to the poor he should show favor. His charges to them should be moderate — if need be, his services should be entirely gratuitous; and the blessing of them that are ready to perish shall come upon him.

Again, it is the duty of the physician to strive, by all honorable means, to elevate his profession; to make it more and more respectable in the community. To this end he will need untiring industry, and energy, and perseverance. He will need also to be careful of the reputation of his fellow-laborers in the medical profession. In no profession is there more rivalry than in that of medicine, and no where is the temptation stronger to speak disparagingly of others than among doctors. We need to study and practice medical ethics more than we do. And let us bear in mind that we are not to live by killing each other. Let us deal honestly by our patients and *honorably* by each other. Let us despise and shun any thing like meanness and trickery. Wherever real skill and merit exist let us be willing to acknowledge it. If the physician nearest to us performs successfully a difficult surgical operation, let him have the credit of it. Let us try and help each other. If, by hard study and fair means, he rises high in his profession and gets more practice than we do, let him enjoy it; do not envy him; be not jealous. But if an empiric—an ignorant pretender to medical skill—sets up by my side, and by mean, and unfair, and dishonest practices deceives the people, and gets away my patients, what shall I do? you may ask. This, it must be acknowledged, is one of the severest trials to which the physician, and especially the young physician, is subject. But be patient. Let the empiric alone. Do not abuse him. If he slanders you, live

so that no body will believe it. Show that you are more skillful, more honest, and more reliable, as a man and a physician. *Be patient*, and he will soon show his ignorance, and his race will probably be short. The people will be undeceived. Your patients will come back and esteem you all the more, and love you all the better.

I can not close this address without suggesting one duty more which belongs to us as physicians, especially at this time and in the present unhappy state of our country—it is that we should ever cherish and manifest a *spirit of patriotism;* a true love of our country, our nation and our government. Let party spirit be banished. Let the petty political bickerings of the past be forgotten. Let us be united for the common good of our common country. Let us rally for the stars and the stripes of our once glorious Union. Let our whole influence be to sustain the government under which we were born and have thus far lived, and under which, thank God, we hope to die. Let enough of our number go to supply well our army and navy with able and skillful physicians and surgeons. And let those of us who stay at home be willing to make some sacrifice. Let us freely and cheerfully give our professional services to all the families of those who have left their homes and gone to defend our rights, and sustain our government, and save our country.

J. C. EASTMAN.

REPORT OF COMMITTEE ON SURGERY.

Mr. President and Gentlemen:

Having had the honor of being reappointed the "Committee on Surgery," at our last annual meeting, I had hoped to have been able to have made a report worthy of being presented to our society, embodying, as it should, the progress which our surgeons have made in this important branch of our profession during the time upon which I was to report.

To bring about this end, I addressed circulars to some thirty or more of our Fellows, asking their aid in preparing such a report, but to the present time I have received no reply; this, therefore, is my excuse for this meager report, which only embraces the results of a few cases which have occurred in my own practice during the last year, and such suggestions in regard to them as may present themselves to my mind.

The first case that I would call your attention to is a case of

TRACHEOTOMY.

The patient, an infant child of Dr. Perkins, of Marlow, aged about eighteen months, on the 25th of last June, while being fed by a neighbor, who was calling at the house, with peanuts, in some way drew a nut or a portion of a nut into the larynx. Great dyspnœa at once, of course, followed, and the foreign body could be distinctly heard by Dr. Perkins playing up and down in the trachea, causing much dyspnœa when it was drawn up to the larynx, and comparative relief when it fell back into the bronchi.

The accident occurred in the afternoon of the 25th, and being unavoidably detained by business I did not see the patient until the afternoon of the 26th, some twenty-four hours after the accident. When I first saw the patient she was asleep in her cradle; respiration considerably accelerated,

some crepitus, which seemed to be principally confined to the trachea, skin cool, pulse but slightly changed, and appetite good. From Dr. Perkins I learned that the foreign body had not moved for some hours. From the difficulty of examining the chest on account of the restlessness of the little patient, I could not decide upon which lung the foreign body was lodged, but that it was upon one or the other lung there could be no doubt, and the only course which could give the child any chance for life was to remove, if possible, the cause of the difficulty, and this could only be done by opening the trachea. The only reason why I hesitated at all, was the fact that the foreign body had not apparently moved for some hours, and I feared that it might have become impacted in some of the smaller bronchi, and therefore the operation be of no service; but upon conferring with my friend, Dr. Thayer, I decided to open the trachea, which I did as follows, assisted by Dr. Thayer and Messrs. Gleason and Hawks, medical students:

The little patient was first thoroughly etherized, and then placed upon a table with a large compress under its shoulders by which its chest was raised and its head made to drop backward, thereby making tense the skin and other tissue about the neck. An incision was then made in the median line through the skin and superficial fascia, the muscles carefully separated and the trachea reached without any vessel being injured, which gave the least trouble, the child all this time breathing quietly and making not the slighest resistance. After the slight oozing from the wound had ceased, I opened the trachea with my scalpel, by cutting from below upward, two of the rings. The air immediately rushed out through the artificial opening, but did not, as I hoped, bring the foreign body with it. I tried to excite an effort to cough by irritating the trachea and bronchi with a probe, but to no purpose. Various other methods were resorted to, such as slapping the chest, raising the body, &c., to dislodge the cause of the difficulty, but there it remained, and after spending some thirty minutes in these fruitless attempts to relieve my patient, I determined to trust the case to nature, feeling that there was but little probability that the offending substance would ever be removed. But that the little patient might be in as favorable a situation

as possible for the exit of the nut should it be dislodged, I determined to leave the wound in the trachea open, and for this purpose was preparing some hooks, from a silver probe, that I could hook into each side of the wound in the trachea, and, by fastening around the neck of the child, keep the wound open. In the mean time the wound was kept open by an assistant, with blunt hooks. At this moment the patient, probably partially recovering from the effects of the ether, struggled and coughed; the nut flew up to the opening, but was too large to come out. In attempting to seize it with a pair of forceps I lost it, it being drawn down again. After some time it was again driven up. I then saw that it was too large to get through the opening which I had made in attempting to remove it. I again lost it. I immediately divided another ring, and with my probe passed upward irritated the rima glottidis, which immediately excited a cough, and the nut (which proved to be the half of a large peanut) was driven up and out of the opening and half across a large room. The wound was immediately closed with adhesive straps, and the child placed in its cradle, when, in less than fifteen minutes, it was in a sound sleep, breathing quietly, without the slightest crepitus. It recovered without a bad symptom.

I might here say, that during the operation, when it was necessary to renew the ether, I closed the artificial opening that the child might breathe through its nose.

The result of this operation, and of two other cases of foreign bodies in the trachea which have come under my observation, has taught me the importance of an early operation and the great danger of delay. In one of the cases referred to, I could not prevail upon the parents to consent to an operation until it was evident that the child would not live much longer, unless the obstruction could be removed. I then operated, but the foreign body could not be dislodged, and the child died two days afterward. An autopsy showed the presence of excessive inflammation of the whole left lung, it being almost entirely hepatized, and the foreign body, which was part of a large kernel of corn, firmly imbedded in one of the larger divisions of the bronchi. An early operation would, undoubtedly, have saved the child. In the other case I was

not consulted until some three weeks after the bean had entered the trachea, at which time the inflammation was so great that I could not advise an operation. The child died some two or three days afterward. The patient was in a neighboring town and I had no autopsy. From the family I learned that the bean could be heard to move freely up and down for several days after it entered the larynx, and at times it would be nearly suffocated. This child also might have been saved by an early operation.

There are two points of interest to me in the case reported. First, the rough breathing, which was apparently confined to the trachea, and, as I supposed, was caused by the presence of inflammation in this tube, produced by the irritation of a moving body, but which proved to be the result of the lodgment of a foreign body in the bronchi, as the roughness immediately ceased upon the removal of the nut, and not returning, although there must have been much irritation of the mucous lining of the trachea in the attempts to remove the cause of all this trouble. The other point is, that if we wish to excite an expulsive effort on the part of the patient, under such circumstances, we, instead of passing a probe downward into the bronchi, should pass it upward so as to irritate the rima glottidis. This is particularly the case should the patient be under the influence of an anæsthetic, as, under such circumstances, all motion is involuntary. I should hope by this means to excite respiration, when, during the operation of laryngotomy or tracheotomy, respiration is not established immediately upon the opening the tube. Of course I do not mean that this plan should alone be resorted to, to the neglect of artificial respiration, but should be tried while preparation for artificial respiration is being made, for we are often called upon to operate hurriedly and with but few instruments at hand.

The next case to which I would call your attention is a case of

MAMMARY TUMOR.

The patient, Mrs. Saunders, of East Jaffrey, sent for me, at the suggestion of Dr. Albert Smith, of Peterborough, in October, 1850, to remove a tumor from the left breast. I found a

large tumor involving the whole gland, the veins large, and ramifying over it as we see in fungus hæmatodes, the nipple not retracted, pain of a lancinating character, pulse quicker than in health, in fact every indication of malignant disease, except emaciation, the patient being a large, fleshy and apparently healthy woman. Upon removal of the tumor, and examination, I had no doubt but that it was encephaloid, and my prognosis was, that the disease would return, either internally or externally, and my patient be dead within two years.

The history of the case, as I learned it from the patient, is as follows: When a child, aged about six years, she received a blow upon the breast from the horn of a ram. The injury gave her great pain, and there was considerable swelling and discoloration; but this soon subsided almost entirely, leaving but a small tumor, about as large as a walnut, which was very hard, but not painful or tender to the touch, until about one year after her marriage, which took place in 1849, some forty-four years after the receipt of the injury, or when she was fifty years old. The apparent cause of the increase, at this time, was another injury to the breast, which was received in being thrown from a sled in the month of February before I saw her. In falling, she struck upon her head, bending her neck forward and striking her breast with her chin. The injury seemed to be confined to her breast, which was very painful for some time after the accident. The tumor immediately commenced growing, and increased rapidly until, at the time I visited her, the whole breast was involved, and presented the appearances above described. As I said before, the patient's general health was good. She was very freely supplied with adipose tissue, and must have weighed at least 175 pounds. She had no cough or other indications of visceral disease, but as the tumor had the appearance of soon ulcerating, and fearing that should this take place we should have troublesome if not fatal hemorrhage, I decided to remove all of the diseased mass, which was done in the usual manner. The patient lost considerable blood, as the diseased gland was fed by several large arteries. These were taken up without trouble, and I left the patient in the charge of Dr. Smith, under whose skillful management she progressed favor-

ably, and, although there was not, as I hoped, union by first intention, but rather extensive suppuration, the wound healed entirely in about five weeks, and she felt perfectly well. The mass removed weighed four pounds fourteen ounces. Some parts of it had almost a scirrhous hardness, while other parts were soft, having a medullary appearance, with here and there a cyst containing a gelatinous matter; but in no part did I find true pus, though parts of the structure seemed to be entirely broken down. The whole gland seemed to be involved, and so changed in its structure that it was impossible to distinguish it from the surrounding tissue, which was also involved with it in the disease.

I did not see the patient after this until the 27th of October, 1852. In the mean time she was perfectly well, as she expressed herself—no pain or other disturbance whatever. In the early part of September, the month before I saw her, she first noticed a small tumor under the cicatrix. This increased rapidly, but without pain, until on the 27th of October, a little over a month from the time it was first noticed, it had reached the size of a large orange. I removed this tumor, which had the same general characters of the first. The wound healed without any untoward symptom, and the patient remained perfectly well for a little over two years, when it returned as before, under the cicatrix, and was again removed on the 4th of January, 1855—health, in the meantime, as before, perfectly good. From this time until the latter part of the year 1859, there was no appearance of the disease, or any derangement of the general health, and the patient had begun to flatter herself that she was to have no farther trouble from this strangely re-appearing disease; but it now began to manifest itself, as in every other instance, just under the cicatrix. I removed it for the fourth time on the 12th of January, 1860. The tumor was at this time nearly as large as at any time after the first. The wound healed entirely by first intention, and the patient returned home well. On the 20th of February, of the present year, 1861, she again presented herself, with a tumor much larger than either of the others since the first, or rather there were two tumors closely connected together, one quite small, not larger than a large walnut, just

under one portion of the cicatrix, over which the skin was of a florid color, smooth and shining, and so tensely drawn as to appear adherent to it, but which proved to be entirely free and easily separated; the other tumor, which was only connected to the smaller one by loose cellular tissue, was situated under the axillary fold of the great pectoral muscle, and partially reached into the axilla. She has now a slight cough, which has troubled her more or less for the year past, and she is rather thinner than a year since, though still liberally endowed with adipose tissue, and considers herself, were it not for the tumor, in good health, having been perfectly well (except the slight cough), and doing all her ordinary work about the house during the last year. I again removed the tumor, which seemed to be entirely confined to the cellular tissue, the muscles being not at all involved. So slightly was it attached to the surrounding parts that, upon cutting through the skin and adipose tissue, it was enucleated with scarcely a touch of the knife; but one small artery required the ligature. The wound healed by the first intention, and the patient left, apparently well, eight days after the operation.

The chief point of interest in this case is the frequent recurrence of the tumor in or near the part where it first showed itself, and the question at once arises as to whether it is to be regarded as malignant or non-malignant. So far as I could judge, from an examination by the naked eye alone, I at first had no doubt in regard to the question, feeling that it was unquestionably malignant; but I began to have doubts as to the correctness of my diagnosis, upon finding my patient living so much longer than is usually the case in malignant disease, and with her general health so little impaired; so that, at the suggestion of my friend, Dr. Thayer, a portion of the tumor, with some of the juice contained in it, was packed in tin foil and sent to Prof. Stiles, of Pittsfield, an experienced microscopist, that we might have the light that that most important aid to pathological investigation, the microscope, could throw upon it. The result of his examination I will give in his own words:

"It contained no cancerous juice, but was composed of fibrous and fibro-plastic tissue. I consider it a good specimen

of sarcoma. The only cellular element it contained was a pale oval cell, transparent, without granulations, of a long diameter, varying from that of a blood corpuscle to double that diameter, containing one or generally two nuclei—these last not brilliant or as well marked as in what is generally called cancer. When the tissue was fairly separated, these cells, or more properly nuclei, were found attached to a fibrous bundle or fusiform fibro-plastic element. The fluid contained fusiform fibro-plastic element and exudation and pus corpuscles. I found no structure in the mass—parallel fibres only; no yellow elastic tissue, no tubular arrangement of cells. I can not guess from what part of the body it was derived; most probably from one of the extremities. It had not the characters to which malignity is generally attributed."

In Paget's Surgical Pathology, we find described a form of disease which I do not remember having seen so fully described before, and which very nearly resembles the case above reported. Mr. Paget proposes for this class of tumors the name of "*Recurring Fibroid Tumors,*" they having these remarkable characters in common:

"I. A general resemblance to the fibrous tumors in their obvious characters.

"II. A microscopic texture, composed, essentially, of elongated and caudate or oat-shaped cells, somewhat resembling the elongated cells of granulations, or of lymph developing into fibres, yet differing from these enough to be easily distinguished.

"III. An exceeding tendency to local recurrence, after removal, and, in the worst extremity, to protrusion and ulceration.

"IV. An absence of those events which, in cases of ordinary malignant growths, would coincide with local recurrence, such as cachexia, independent of profuse suppuration, pain, and other ordinary causes of exhaustion, and the absence of all affection of distant parts, or of the lymphatics.

"V. Occasionally a cessation of the tendency to recurrence and a complete recovery."

He illustrates his description of the disease by the report of several cases which came under his observation, and the appearances which the disease presented under the micro-

scope. I will give one case in full, which will show how nearly my case resembles this form of disease.

"In 1839 Mr. Syme removed a tumor, which, without any known cause, had been growing for a year over the anterior part of the right rib of a gentleman aged 48 years. Two years after the operation, another tumor appeared in or near the same part, and was removed by Mr. Syme in 1843. A third was removed by him in 1847, and a fourth in 1849. After an interval of apparent health, a fifth tumor appeared and grew quickly, and was removed by the same gentleman in 1851. The patient recovered from the last operation as from all the previous ones, quickly and favorably, but the wound had scarcely healed when two more tumors appeared beneath the scar, like the preceding ones, except in that they grew more rapidly. One of the tumors was so firmly fixed to the clavicle that no farther operation could be recommended. In six months' growth the tumors, at first distinct, had formed a single mass, deeply lobed, of oval form, measuring a foot in one diameter, and about ten inches in the other. It covered and felt as if tightly fixed to the middle half of the clavicle, and then extended downward over the chest, and outward toward the axilla; it felt heavy, firm, tense and elastic. The skin, tightly stretched over it, and, by tension, appearing as if adherent, was generally florid, but in some parts livid, and over some of the most prominent lobes ulcerated. The principal ulcers were superficial, covered by healthy granulations, discharging thick pus, having no cancerous or other specific character.

Such were the characters of the disease when I saw it in February, 1852, and it was very striking, as evincing one of the contrasts between this form of tumor, and rapidly growing, ulcerated cancer, that the patient's health was scarcely affected. He was still a florid, sturdy man, and fed, slept, talked and moved about as a man in health might do. But within the last month the ulcerated surface of the tumor had bled severely. The tumor increased constantly to the time of the patient's death, in July, 1852. Death seemed due to mere exhaustion consequent upon the discharge from the tumor, and the pain to which, as it extended further into the axilla,

it gave rise. There was no indication of any internal disease, but an examination other than of the tumor was not allowed." "Under the microscope, after having lain in spirit, the tumor presented a great many slender, awl-shaped corpuscles. They looked dry and shriveled, containing no distinct nuclei, but minute, shining particles, as if themselves were outgrown nuclei. With these, also, were numerous broader and shorter corpuscles of the same general aspect, but inclosing oval nuclei, and yet more numerous smaller bodies, like shriveled, oval, elongated nuclei, dotted, and containing minute, shining particles. The whole mass appeared made up of corpuscles of these various shapes, irregularly or lineally imbedded in a substance that was nearly structureless, or imperfectly fibrillated."

You will notice many points in common with my case: the frequent recurrence of the tumor near the same place, and at irregular intervals, the patient in the meantime in apparent perfect health; the rapidity of its growth when it did recur; the quick and favorable recovery after each operation; and also the microscopic appearances.

There can be no doubt, I think, but that my case should be included in this class of tumors. What is to be its termination I do not pretend to know, but probably it will recur near the original seat until it fixes itself upon some part, as the rib, clavicle or sternum, from which it can not be removed, and then, in course of time, we will have ulceration, and possibly hemorrhage, and the patient will die, worn out by the exhausting drain upon her system, as in the case described by Mr. Paget. Though I can not but hope that it will yet be finally eradicated, as, according to the same writer, such a result is not impossible.

From the result of this case, and one other of a similar character, which has come under my observation, I have become more cautious in my prognosis, and the more ready to urge an operation in those cases which have all the general characters of malignant disease; for though in this case my patient is not cured, still I have no doubt but that her life has been prolonged more than eight years already; and, with but short intervals, all the comforts of perfect health. I believe,

in these cases, time alone will disclose their true character. Though the microscope will aid us much in making up our diagnosis, it can not be implicitly relied upon; for we well know that the cancer cell is not always found in true cancer, and, on the other hand, a cell so nearly resembling it as not to be distinguished from it, is found in some forms of non-malignant tumors. I, therefore, believe it to be our duty to give our patient the benefit of this doubt, and never condemn him to certain death, until we have first tried every means which art has put into our hands to prolong and save his life.

The third and last case which I think worthy of note, is a case of compound fracture of the skull. The patient, a healthy boy aged nine years, was injured by a cow, either by being kicked or knocked over upon a stone, on Sunday, the 26th of May last. I saw the patient about two hours after the accident; found him partially conscious, sensitive in some degree to the touch, though he did not appear to recognize the persons around; had been vomiting, and vomited once after I saw him. There was quite a large, lacerated wound of scalp, and depression of a portion of the left parietal bone. Upon enlarging the wound by a crucial incision, I found the fracture much more extensive than I at first supposed; extending forward more than two inches, and somewhat comminuted, but still so fixed in its position as to require the application of the trephine before I could raise the broken fragments to their proper place; and when this was done, the pieces were so completely separated from the adjoining bone, that I removed them, feeling that there was no probability of their ever uniting to the sound bone. The portion of bone removed was divided into three parts, and when placed together measured two inches in each diameter. There was much hemorrhage, and the patient appeared very much prostrated. He was put to to bed, and warm applications made to the extremities. Reaction soon took place, and in a short time he recovered perfect consciousness. He has progressed to this day (June 14) without a bad symptom; wound is healing kindly; appetite good; sleeps well, and has no pain: in fact, there seems to be no doubt of his perfect recovery.

I mention this case, not because of any peculiar interest

attached to it, but for the purpose of speaking of the treatment of fractures of the skull; particularly where the bone is depressed, but the mind not affected. I was taught, and I believe almost all writers direct us, not to apply the trephine where, though there may be decided depression of the bone, the mind of the patient seems not to be affected; that this instrument should only be resorted to when, along with depression, there is more or less unconsciousness; if the mind of the patient should be clear, we should not interfere, but trust the case entirely to nature. This is the point which I desire to touch upon. I would enter my protest against such teaching, for I feel that it is very important that all unnatural pressure should be taken from the brain, regardless of its immediate effect upon the mind; for we very well know that the cavity of the cranium is always full; as the brain, its vessels and membranes fill up every part of it, there is no vacant space; and if by any cause this cavity is diminished, it must be at the expense of compression of its contents; and as we all know that undue pressure, though slight, continued for any length of time, will either cause absorption of the part compressed, or change in its structure, and consequent derangement of its function; so, in cases of the brain, there can not be depression of both tables of the skull without more or less compression of this important, vital organ. That many instances occur in which no apparent injury arises from this state of things, I admit; but that very many instances have occurred where, it may be years after the accident was received, the patient has been seized with attacks of epilepsy or insanity, which attacks have been found to arise from a spicula, or portion of bone pressing upon the brain, no one, I think, who has paid any attention to the matter, will deny.

To have a sound mind, we must have a sound brain; and as this organ is the center of all mental and vital action, it can not be impaired in its structure, without impairment of its functions. I do not believe that there was ever injury, with loss of substance, where, upon recovery, the functions of the brain were as perfect as before the injury, and the same of compression — until the compression is removed, the functions of the brain are not perfect.

The only question is, shall the cause of this compression be removed at the time of the accident, or shall we wait until some serious symptoms show themselves? I say, without hesitation, relieve the brain at once, before there is time for any organic change to take place. I know that it is a very serious matter to lay bare the membranes of the brain, that there is great danger that serious inflammation may follow the operation; but this danger is not so great as must attend the permanent compression of the brain by depressed bone. But before we decide to apply the trephine, we must be well satisfied that there is actual depression of both tables of the bone; for very often, by a glancing blow of a small body, as a musket ball for instance, the outer table is fractured, and the inner uninjured. Of course, to trephine in such a case would be unnecessary, and endanger the life of the patient. That there may be difficulty in deciding this question in some instances, I do not doubt, and in such cases I would advise to apply the trephine so as to remove the outer table, and then we could easily learn whether the fracture extended below this, and act accordingly.

In our journals we frequently meet with instances where, by removing a portion of depressed bone, attacks of epilepsy under which the patient has been suffering, it may be, for years, have been entirely arrested. Who can say that the mind of a person, who has thus suffered from so severe and serious disease of so important an organ as the brain, ever perfectly recovers? I have such doubts in regard to this point, that I feel that it is our duty to run the risk of possible present danger, for the sake of a probable permanent good. I have met with five cases of fracture of the skull within the last few years, all of which I have been obliged to trepan. In three there was laceration of the *dura mater* and injury, with loss of substance of the brain; and in the other two there was fracture with depression, but no injury to the membranes. All were compound fractures, and all recovered, or are convalescent at the present time, thus showing that the danger is not so great as at first we might suppose, in the use of the trephine.

It may not be inappropriate, in this report, to refer to a mode

of administration of one of the most powerful agents which we have for the relief of suffering, which has given me much satisfaction in a great number of cases. I refer to the hypodermic use of morphia. I think that in no cases do we see the beneficial effects of this mode of using this agent so beautifully manifested as in the relief of the great suffering of burns and contused wounds. Both of this form of wounds, we all know, are attended with much more pain than follows simple, though extensive, incised wounds. It is in these cases that this mode of administering morphia acts like a charm. In five minutes, frequently, the patient is perfectly easy, and often asleep in less than fifteen minutes. In some few cases of very severe pain, I have been obliged to administer it a second time, and in one or two cases even a third time; but as it acts so quickly, and we get its full effect in so few minutes, I have no hesitation in repeating the injection in fifteen minutes, should I not find my patient being relieved. The quantity which I administer at one time will depend upon the severity of the pain and age of the patient. In the adult, when the pain is very severe, I would give two thirds of a grain of morphia at once, and would repeat this quantity in fifteen minutes, should I not see my patient becoming easier. In no case have I seen the least unpleasant symptom arise, either vomiting, nausea, or vertigo; nor any local inflammation at the point of puncture. I might instance many cases in which I have thus used morphia for the relief of pain, but one will answer. A conductor of one of our freight trains had his feet caught under the cow-catcher of the engine, while the engine was moving slowly, and badly bruised, though no bones were broken. I saw him in some two hours after the receipt of the injury. The feet were very much swollen, and the patient apparently in very great pain. I immediately injected one half grain of morphia into the cellular tissue of the leg. In fifteen minutes he was sound asleep, and continued so for some two hours. He then awoke, and the pain returned. Another injection relieved him, so that it was not necessary to again resort to it. In this case I injected it into the cellular tissue of the leg; but I find, from repeated trials, that it makes no difference where it is injected, it will have the same effect,

whether put into the arm or leg, and act as quickly; so that I now, as being more convenient, in all cases insert it into the tissue near the bend of the arm. I dissolve the morphia so that I get to each mark upon the piston of the syringe, as made by Tiemann, one sixth of a grain of morphia, and to the full syringe four sixths or two thirds of a grain; and as the syringe holds but about thirty minims, we may, if necessary, give a full syringe at a time. I take up a fold of skin between the thumb and finger of my left hand, and with my right enter the point of the syringe as if about to transfix it, but as soon as it passes through one layer of skin into the cellular tissue, I drop the fold, and push forward the piston. Should the fluid not flow readily into the cellular tissue, but remain near the point of entrance, before removing the syringe, I push away the fluid with my finger. There is no need of any kind of plaster over the point of entrance; the solution will not flow out.

This mode of using morphia is also peculiarly applicable to those forms of disease which preclude the use of the remedy by the stomach, or when this mode of using it is too slow in its action, that so often come under our notice as physicians. I refer to painful affections of the stomach, attended with obstinate vomiting or difficult deglutition, as in cholera morbus, bilious colic, or schirrhus of the stomach or esophagus. In fine, it may be better given in this mode in all cases where it is used for the relief of pain.

GEORGE B. TWITCHELL,

Committee on Surgery.

ORATION ON MEDICAL PHILOSOPHY.

BY ALBERT A. MOULTON, M. D.

In casting about for a theme whereon to bestow a few thoughts, will you allow me for awhile to take a ramble among the various opinions and practices arising from a loose medical philosophy. And as but little time is allotted me, you will not expect a thorough completion of any part which I may strike; and though I touch but to mar, the sound may quicken the ear, and perhaps awaken from a reverie which is but too deep.

Truth gives dignity to science, and success to art. Truth is both modest and progressive. God has established truth as the beacon-light of his creatures, and commands them to seek and follow it. Truth is no alloy, whether it be in religion or science. It is that which comes slowly but surely, on patient seeking. "It is God's glory to conceal a thing, man's glory to search it out;" and honored and blest are they who are endowed with that higher and varied mental culture by which they are enabled to comprehend, in a good degree, those truths which, from time to time, well up from the great and inexhaustible mine which the beneficent Creator has established. There is a fixedness in every thing turned from the hand of the all-wise First Cause. There is no variableness or shadow of turning in the laws which govern his works. Every object has its own governing principle, in isolation and in combination, whether organic or inorganic, animate or inanimate. And in order that man — he whom God has made a little lower than the angels, and crowned with glory and honor; more, hath given power over the works of his hands— may lay his hands on things of omnipotent design, and demand a giving up of all they have and are, he, too, must yield a rigid obedience to the law of his intellect, by instituting that patient and resolute seeking, that acute and well-

directed observation, nice discrimination, quick perception, and well-trained judgment, which alone is rewarded with true knowledge. There is no higher incentive to the acquisition of special truths than that which fires the spirit and quickens the labors of medical men. It is their high prerogative and duty to proclaim good will toward man, as well as to assuage those sufferings which trammel even the soul in its holy aspirations for eternal things. Ours is a great, a noble work; a work which should inspire us to the utmost effort, anxious and well-directed zeal, in the pursuit of that knowledge which insures us success in restoring the sick to health.

Since the most primitive state of our science, there have been various theories extant, each to prevail for awhile, and then give place to another. These different systems have prevailed to an extent and with a degree of pertinacity proportional to the reputation and zeal of their devotees. They were all right and all wrong; for every manner of cure, from the days of Simon the sorcerer down to the present time, has involved more or less of the great and all-important principles which to-day govern us, but a wrong interpretation has led them, as well as ourselves, into many dark places and intricate labyrinths, and at the present time we have not a system, but systems. First principles are really in an uncertain state. We have not that well-defined fixedness of belief, by which we make all the phenomena we witness, both morbific and remedial, to harmonize with one great, ever-present, ever-acting principle; and that we have not an unassailable basis, is, I opine, in part attributable to the fact that we enlist under the banner of any zealously importunate theorist, who comes to us with his figures well and ingeniously cast. We have cared too much to have true principles simplified and brought to a mathematical demonstration, thereby affording relief from the irksome task of observing and reasoning for ourselves.

The presumption that man is but a laboratory for the play of chemical affinities; that every phenomenon which occurs, from the action of saliva on the food in the mouth to the final and ultimate use of the same in the human body—that animal life is the result of chemical force, and animal heat the oxydation of carbon—and the various secretions and excretions of

the economy but the grand result of chemical action, now too largely obtains with us. This is a very captivating theory; for the chemist stirs it in his crucible, and pours it out before you, confidently declaring it to be truth. The medical profession is not alone in becoming the victims or dupes of the fascinating simplicity of these chemical dogmas. This chemical theory of life is coextensive with society; ingrafted upon popular works, and carried into our colleges, academies and public schools. It has become a part of the general plan of elementary education, and books are hawked about the country, teaching the regulation of diet by chemical analysis. Not content with allowing these forces their proper sphere of action, in which they are astonishingly beautiful, as also instructive, and furnish to man a *sine qua non* in many of the arts and sciences, some of our leading chemists, Liebig in particular, who stands at the head of this school of philosophers, have come up from the field and the work-shop, and invaded the sanctum of a higher power. O how they have stooped to conquer, and yet have failed! Liebig begins his aggression upon the vital capacity of organic beings, as concerns us especially, by a chemical explanation of digestion. He says "chymification is independent of the vital force; that it takes place in virtue of a purely chemical action, exactly similar to those processes of decomposition and transformation which are known as putrefaction, fermentation, or decay." We are told, also, that this is experimental philosophy, and we must submit to it. But confusion arises early. He says, in his "Organic Chemistry applied to Physiology," "The equilibrium in the chemical attractions of the constituents of the food is disturbed by the vital principle. The union of its elements, so as to produce new combinations and forms, indicates the presence of a peculiar mode of attraction, and the existence of a power, distinct from all other powers of nature, namely, the vital principle." Such conflicting statements are constantly occuring in his works on Animal Chemistry.

But, so thoroughly befogged are his disciples, and so unwavering their faith and humble trust, that broken sentences, containing such words as fermentation, putrefaction, chemical digestion and recombination, are repeated as devoutly and sub-

missively as the priest-ridden mortal responds to his spiritual adviser.

I will give a few more conflicting statements of this said Liebig—for self-condemnation is the most effectual.

I. In the animal body we recognize, as the ultimate cause of all force, only *one cause*—the chemical action, which the elements of the food and the oxygen of the air mutually exercise on each other. The only known ultimate cause of vital force, either in animals or plants, is a chemical process. If this be prevented, the phenomena of life do not manifest themselves. If the chemical action be impeded, the vital phenomena must take new forms. All vital activity arises from mutual action of the oxygen of the atmosphere and the elements of the food.

II. The power to effect transformation does not belong to the vital principle. Each transformation is owing to a disturbance in the attraction of the elements of a compound, and is consequently a purely chemical process.

(CONFLICTING STATEMENT.)

I. The vital principle must be a *motive power*, capable of imparting motion to atoms at rest, and of opposing resistance to other forces producing motion, such as chemical force, heat and electricity.

II. The vital force appears as a moving force, or cause of motion, when it overcomes the chemical forces, cohesion and affinity which act between the constituents of food, and when it changes the position or place in which their elements occur.

The vital force is manifested as a cause of motion, in overcoming the chemical attraction of the constituents of food, and is, farther, the cause which compels them to combine in a new arrangement and to assume new forms.—*Animal Chemistry.*

One more contradiction will answer for the present.

III. By chemical agency we can produce the constituents of muscular fiber, skin and hair! We are able to form in our laboratories formic acid, and urea, &c., all products, it is said, of the vital principle. We see, therefore, that this mysterious vital principle can be replaced by the chemical forces.—*Organic Chemistry.*

III. We can not expect from organic chemistry the synthetic proof of the accuracy of the views entertained, because every thing in the organism goes on under the influence of the *vital force*, an immaterial agent, which the chemist can not employ at his will.—*Animal Chemistry.*

At one moment this philosopher recognizes a vital principle, distinct from all other powers, over all; while the next instant he declares the cause of all force to be chemical action. And, as the fountain is muddy, so is the stream. While I speak thus freely of Liebig, I would not forget to award due honor to a man who has performed such unrivaled and successful labors for the advancement of chemistry in its proper sphere. Our much respected and oft consulted Carpenter falls into this same jargon. And why should he not? Liebig is the commander-in-chief of this battalion of chemical physiologists,

and what they all write and say is but a reiteration of the "sweet German accent" of this pseudo-philosopher, who commands while he seems to persuade. Hundreds of lesser men have shown a credulity in the reception and propagation of this theory that is indeed humbling to all true observers and close reasoners.

To follow out this ultraism, that chemical force is life-force in its results, is beyond the privilege of this hour. It brings in its train other theories, also untenable; and if we yield ourselves supple tools to such dogmas, we are fit only for the tread-mill of the importunate aspirants who manufacture for us such sophisms. The contradictions of Liebig I have quoted here are but a small part of what might be selected, some of them more glaring than those already offered.

But even one of them would be sufficient to bring his "facts" into distrust, for the power that presides in the organic being really and truly never fails to be consistent with itself. All the operations of organic nature are reduced by chemical philosophers to laboratory experiments, and the results transferred by analogy to the human system, which does violence to truth and sense, and is a gross outrage upon inductive reasoning. They *want*, in those experiments, that which Liebig himself declares to be without the control of the chemist. Says one, "the phenomena of nature are the facts about which all philosophy is concerned, and therefore form the substantial ground of all intellectual acquirements. As they relate to organic beings, to their laws, their functions, whether morbid or healthy, they are to be found in the organic being himself; not in the work-shop of the chemist or of the mechanical philosopher. But where the mind admits this proposition, if prone to speculation, it too often regards each fact by itself, and rears up hypotheses wrong in themselves, and in conflict with each other. Facts should therefore be compared before they are reduced to theory; or, where they may conflict with acknowledged principles, they should remain in an isolated state, till their true nature may be better understood."

There is a class of minds who admit of no realities except such as make strong demonstrations upon their senses; and as patronage from this class flows freely, granting honor to

whom honor is *not* due, ambitious philosophers depart from the strict observation of nature to seek fame in unwarrantable expedients. False medical philosophy has done much harm. It has dealt a hard blow at the foundation of successful medical practice. It has maliciously interposed between the "*vires vitæ*," and their high prerogative of reigning supreme in health and disease. It starts the physician in the wrong direction in pursuit of the disease he would combat and conquer. He must know what power is changed, and how modified; and if he begins with the assumption that chemical force, in its various workings, is the theme for investigation and research, O! where will his poor beclouded intellect lead him, and what the end? He is betrayed into the attempt to cure the dyspeptic by analyzing. Acids and alkalis in their turn are tried. But notwithstanding all these, in their varied assortment, the patient continues his belching and groaning. To get rid of the patient, the doctor sends him to Cape Cod for a berth on a fishing smack. In sixty days he returns hale and hearty, to rejoice with his medical adviser at the result of the wisdom unwittingly exercised in his case. Well now, does the doctor, in meditating upon this case, account for this recovery by some new play of chemical affinity, induced by a change in the constitution of the atmosphere he breathed, together with the abundant supply of fish, which so beautifully putrefied, and then recombined in his patient's stomach? Very likely; or-else, closing his cogitations with exclamations as "wonderful!" "remarkable!" he congratulates himself on having discovered a specific for dyspepsia. And ere his desire to signalize Cape Cod as a watering-place grows cold, dyspepsia Number two presents his case for examination and treatment, who, in his turn, is dosed chemically, and turned over to Cape Cod or Isle of Shoals. But, alas! number two is not so fortunate as the first. He returns in a few weeks to his home and his doctor, with the blue devils dancing on his very features. He is sad. The doctor is sorry, and after a few funereal-toned remarks upon the obstinacy of *some* cases, passes a *placebo* to his patient, and bids him good morning. What becomes of this patient? He is seen hanging around stores; stealing the use of daily papers; occupying the best

seats; always under foot; behind the counter, with his fingers in the cracker barrel (he can not eat common bread); hacking a little; spitting a good deal; standing on the corners of streets, "waiting for something to turn up;" in the drug-shops, reading patent medicine certificates; popping in upon the various doctors in the city, just when they are in a hurry; sleeps none day or night. His countenance has a pallid, earthy hue, and his clothes hang loosely about him. This man is a walking opprobrium to the medical profession. He advertises us in all those places in which he is found. Need it have been so? I answer, that if the various modifications of that sovereign power, vital force, had been patiently and intelligently observed during these long years that the *ignis fatuus*, chemical force, as applied to physiology, has been pursued, amid constantly occurring disappointments and failures in attempting to hold "the fire that shines," we should now have had an established basis, a stand-point from which all might start. Then he who had the power of observing correctly the facts presented, as well as the capacity of comparing and combining justly, and of applying sensibly, would move among men as a faithful and honored exponent of true science. His failures would be comparatively few, and so just that none would complain. There might have been in Cape Cod number one indications coastward, and a cure reasonably expected; but in number two the indications to be answered might have determined some other course, and a cure obtained. The "stand-point" was needed. We are all of us more deeply imbued with this idea that chemical force is equivalent to life force, than we are aware or perhaps would acknowledge; but our practice detects us in this belief daily, although, doubtless, many, if not all of you, have ere this had convictions adverse to this doctrine gradually stealing upon you, and have talked confidently of the vital power as excited or depressed.

But this eternal idea, that has swallowed up our medical schools and the world, is still retained as the watchword of our strength, the principal string of the harp. We begin at the stomach, and are taught to conceive of digestion as being a chemical process, and so on; through nutrition, animal motion, secretion, animal heat, excretion. Still farther, the

soul must acknowledge, with most humble reverence, its dependence upon this power for every manifestation; and before we can form our diagnosis we must thoroughly investigate chemical affinities, and know what the laboratory is casting off, as compounds unfit for use or longer retention. We must set to work with acids, alkalis, test paper, test tubes, spirit, and iron spoons. These all being arrayed about us, certain suspicious little phials and dishes are uncovered, containing morning and evening urine—fæces, black and white. (I am told that a teacher in one of our medical schools is turning his attention very largely to the investigation of human fæces; expressing himself as having neglected this excrement already too long; asserting that its chemical condition would unlock some of the great mysteries.) We might also add to this array, sweat, mucus, serum, pus, expectorated compounds, &c. Now what have we here? An assortment of inorganic compounds resulting from vital action, and we are left to investigate dead matter that has severed all connection with life force. Are there any indications in these compounds of the peculiar modifications of the power which produced them? Can any one give me an instance of an established basis of action, derived from these excretions and secretions, on chemical grounds? From these various compounds we thought, in times past, to have derived a knowledge of the chemical condition of the blood; for, having its elementary proportions in health established, and also those of the excretions and secretions, with slight circumstantial variations, these last are admitted as indices of the state of the vital fluid. And hence we are mixing, and brewing, and stewing, for some acid, or alkali, or vile fermenting compound, of which we have strained to conceive, as coursing through the living tubes of the human organization. Though facts are daily pressing upon us, controverting this doctrine, we still persist in nursing the darling pet.

Our great teachers assert that these things are so, and we respond, amen. Throughout all the writings of the whole school of chemico-physiologists, whenever the precincts of life force are invaded, you can not find a definite and unqualified statement, comprehending the whole truth and nothing but

the truth. Dr. Bird, in his treatise on urinary deposits, page eighty-six, begins an important announcement as follows: "I, therefore, ventured some time ago to propose the following as a probable explanation of the mode in which uric acid exists in healthy urine." He ventures all this, after consulting Liebig, Prout, Becquerel, Christison, Garrod, Henry, Schweigs, Ackland, Taylor, Mülder, Allen, Pepys, Griffith, Bacon, Strahl, Lieberkuhn, and a host of others, great and small. I copy the above as a very moderate example of what may be found on nearly every page of this class of writers: namely, a display of words without meaning or point. These men are constantly quarreling with each other, no two of them arriving at the same results in experimenting, unless they huddle as a fraternity, to defend themselves against the just judgment of rightful powers. They are confused at every turn, and in a dire extremity they deign to subsidize vital force. But as obstructions gradually clear away under its magic potency, they offer a parting sixpence for the slight aid it has rendered, and pass on with the chemical staff only. Provoked and fretted at the sense of dependence upon vitality, they invoke no aid till necessity sternly demands it. Though no meed of praise has been bestowed, the good genius, vital force, hovers near, ever willing, ever begging, to do even all the work; like the meek wife in the temperance tale — never obtrusive, always serving, always *silenced.*

I have not dwelt upon the various media which obtain among those who behold the two opposites as fearfully arrayed against each other, and think it safer to divide the extremes, invoking the aid, first of one, then the other. These *hermaphrodites* more need our pity than deserve our censure. This compromising, union-loving class serve as hair-stuffed bunters, to prevent a too sudden collision between the two great forces. They are called chemico-vitalists — always assenting and always denying. I leave them to the allotment of all noncommittal, hopeful conservatives. I know that humoralism — a doctrine based on, and dependent upon chemical affinity for sustenance — is an exceedingly popular *ism;* a medical creed that has seemed invulnerable, and has threatened to overwhelm and swallow all before it; but this vital truth, though

beaten back and pierced in a thousand places, has gathered strength and enlarged its proportions, until its stalwart form now bids defiance to subtle gases and blood ferments.

Dr. Stevens says, "That too much contempt has been poured upon this doctrine of humoralism." It may have been so in some past time by some, but now it is met with elaborate argument, drawn from incontrovertible facts and self-evident truths. It is a doctrine too dangerous to be trifled with. The idea that the blood is the "primum mobile" in all diseases, consequently the part to be attacked with remedies, has done more to originate and support quackery than all things else. Hence we have the sarsaparillas, Canchalagua, Elixir of Life, Humor Eradicator, Oxygenated Bitters, Dr. Churchill's Anti-Consumptive Compound and Electro-Chemical Baths, by which mercury, arsenic and lead are extracted from the human body in the solid ore. Is there any humbug in all these? Has there ever been found in this vital fluid, the blood, any of these minerals just mentioned, or antimony, or opium, or prussic acid, or even any of our powerful remedies, to an extent accounting for their remedial action, if found there at all? Show me! If any philosopher of the chemical school has ever announced such a discovery, it has been followed by a blast from one or more of the brethren; as no such results have crowned their efforts in this direction. But the figures are cast, a compromise is made, *mum* is the word, and it rests a fact. It is a well-established fact in physiology, that the organic irritability of the lacteals refuses all such foreign substances as inimical to the best interest of the castle whose portals they vigilantly guard. Some of the more mild remedies have been found in the secretions, in minute quantities. The coloring principle of madder, rhubarb, bile, and a few other mild, unirritating substances, have been detected, as well as iodine and iodide of potassium. But give any and all of the remedials of which any portion has ever been discovered as entering the circulation, to an extent however great, and but a fractional part of what is administered is by the most patient experimenting and subtle process ever detected. Yet a perseverance in certain quantities is demanded to accomplish our remedial purpose. Five grains of the iodide potassa in twenty-four hours

would yield as much, if any at all, to the urinary test, as one drachm. Mülder has declared his belief, that "if the astringent matter present in two ounces of cinchona bark could by any *possibility* be absorbed into the blood, it would produce instant death." Dr. Bird, in remarking upon phosphatic deposits, says, "On investigating the patient's history, some evidence of a previous strain or wrench of the back, or a blow over the spine is always elicited, and the treatment should always be aimed at the organic nerves; and such tonics as silver, bismuth or zinc should be given. For (he says) there is unfortunately great uncertainty attending the use of mineral acids in certain cases. Indeed, I felt almost inclined to question whether any of the mineral acids, except the phosphoric, really do reach the urine, and thus destroy its alkaline character." Here are two chemico-physiologists denying and doubting the very ism they have labored to establish.

What strange creatures they are? But how is it with this testing? No two analyses of the blood have been alike. All experimenters have acknowledged that the best results are only approximal. That it is a homogeneous fluid all affirm; and notwithstanding the ten thousand sources of deterioration—*per humoralism*—it never is found much changed, except there has been some profound impression previously made upon the vital powers. He who is deformed with scrofulous tumors, or spotted with some exanthematous disease, gives us no clew to his disease by any material change of the blood, from its commonly accepted constitution. The fact that hydrocyanic acid kills *instantly*, and that the hypodermic injection of morphine relieves pain at once, before absorption can have occurred, is sufficient to prove the existence of a power presiding in the organic system supreme. The most striking results ever obtained by medication must be attributed to a responsive vital principle. For instance, the operation of all the cathartics and emetics, the action of the innumerable stimulants, external applications, and the obnoxious lancet. To my mind, the doctrine that vital force is the cause of life, the power modified by disease, and the power to be influenced by remedies, primarily, is very clear; and in this age of jargon it is a relief to turn to this inspiring belief as an anchor

of hope. Men of abler minds than mine have intelligently observed the operations of natural laws with unceasing vigilance and faithful servitude. To those who diligently seek for truth, nature yields her store of facts. Facts are stubborn things, and, when cemented together by principles, are as enduring as the everlasting hills. I am well aware that the propounders of the doctrines of chemico-physiology, humoralism, and their parasites, are intellectual giants, before whom ordinary minds might quail. As we behold the long array of names that constitute this legion, and contemplate the power which they marshal around a false philosophy, we can but admire these genuine specimens of the noblest work of God, though they would thwart a just conception of omnipotent design. It is of the highest importance that every physician should have for his daily guide some well-defined philosophy. His law of things should be such as to direct in every emergency. Confusion of principle carries with it uncertainty of action. The non-medical world receive their theories (and it always has them) from medical practitioners; consequently it holds them responsible for their teaching. People are often led to distrust a man who teaches them chemico-physiology, at one time illustrated by an apparently confirmatory experiment, or happily resulting prescription, and at another time utterly fails. The science of medicine is in their minds a very uncertain thing. Their credulity and confidence being thus outraged by one class of medical practitioners, they eagerly grasp at any new ism which promises more and better. Also, the physician whose erratic judgment and mutable philosophy decoys him into the dangerous by-ways of disconnected facts becomes disgusted with the repeated failure of his principles, and in despairing rage at his want of success in prescribing for disease and retaining patrons, rushes over to the enemy for succor and sustenance. In this way quackery has received many reinforcements. There are men who have stood battle for correct medical philosophy through storms of fiercest raging. At one time they would hold the forefront of battle, while pseudo-philosophers were greatly dismayed at the threatened overthrow of their dynasty. Then again, as might does sometime prevail over right, these men, valiant for truth

were beaten back apace, and rather than lose sight of the point at issue, in the bitter rancor of personal feelings, have waited for the more peaceful reign of reason and of sense. The champions of vital force philosophy of earlier times are dead. Their principles still live. The principles of John Hunter and Bichat are presented to us now, with the ever-increasing light of succeeding generations, and with the irrefragable proof of the truthfulness of these principles which we to-day possess, we may stand with our armor on and bid defiance to the dictatorial power which so long has bound us.

In every attempt of the chemist to manufacture substances in imitation of those obtained from the human organization, they have failed. They have produced heterogeneous compounds, which, to their jaundiced eyes, appeared the same as that furnished by nature's artist. In the celebrated experiments of Beaumont, perfect digestion did not take place when he abstracted gastric juice from the stomach, because its various connections and vital sympathies were destroyed, and not till the gastric juice had been stripped of its vital principle, did it yield to chemical affinity. Chemical force can not act as long as the *vires vitæ* control. It is the very nature of this life-force to resist chemical action. It makes use of compounds to obtain other compounds, in which chemical affinity is overruled, and forced to results entirely adverse to the common law of chemistry. We have all of us known for a long time the uncertainty in which the various statements of the so-called "new lights" are involved, but we have not taken a decided stand, questioning the nature of their proof, as we should have done. We have slighted the isolated claims of vital force, because it has been less clamorous, and it would also impose upon us the arduous task of observing assiduously and intelligently, and of classifying, arranging and comparing the facts under notice. We too often forget that we are philosophers, or should be. The science of medicine is established through many minds, making many observations. Animal heat has been considered by chemico-physiologists as one of the glistening foundations of organic chemistry. But that animal heat is strictly a vital process, is proved by numberless experiments and facts. The number of respirations in a

given length of time, or the amount of oxygen inhaled, has but little to do, chemically speaking, with the generation of heat. Blubber, or other highly carbonaceous food, in conjunction with a good supply of oxygen, is supposed to furnish the heat of the animal body. Patients, breathing but six or eight times in a minute, having eaten nothing for several days, are found with intense heat of a part or all of the body. Some, suffering under a local malady, with pulse and respiration normal, are cold. Great irregularity of temperature is sometimes observed. One portion of the system is very hot, while the rest of the body is naturally warm. Frequent respirations will not produce an increase of temperature, unless they are repeated, till general excitation occurs. Various experiments have been performed, to ascertain how the temperature of the animal is affected by injuries of the brain and spinal cord. It is found that mostly in proportion to the full and normal action of the cerebro-spinal axis, is animal heat produced and sustained. Can the chemist explain how the consumptive maintains his natural temperature, when his respiration is so greatly impaired as not to be compensated by any acceleration of its movements? Or why, in this disease, the temperature of the body, without any previous reduction, rises in the afternoon, and this in many instances with no change of respiration? Why do the palms of the hands and soles of the feet burn, while the rest of the body is cool? We know that in congestion of the lungs, when their capacity for æration is very much diminished, there is a very exalted temperature, and also that when blood-letting has suddenly relieved, measurably restoring their function, heat has as suddenly subsided. Has this a *chemical* explanation? I could enumerate facts, proving the vital origin of animal heat, deduced from the experiments of chemico-physiologists themselves, until your patience would be exhausted. It is in this chemical combustion theory that the chemist nears Damascus, and when, struck blind by the effulgent light, the hand of reason is raised to remove the scales from their eyes, they willfully persist in "going it blind." If my reference in any instance has been too summary, it is because the supporters of the doctrines of chemico-physiology, humoralism, chemico-vital-

ism, &c., have shown an entire destitution of the spirit of honest inquiry. Billings, in the preface to his "First Principles of Medicine," boasts of differing from John Hunter, Bichat, Sir Astley Cooper and Lawrence. He broke loose from the "dead languages," and marked out a course for himself, which in his opinion mastered the art. I purchased his book a few years since, and was captivated at first with the assurance with which he wrote. But I found that after a somewhat meddlesome interference with Bichat's vital laws, he preferred calling them "Mechanical Laws modified by Deity." Clear as mud. And he would operate upon these "Mechanical Laws modified by Deity" through the circulation mainly, sending along his compounds for the use of various diseased parts, to be selected and appropriated through the agency of an elective vital affinity which he denies to the lacteals. I have had reference to hermaphrodites a few pages back. Professor Dunglison, in his introductory lecture at Jefferson Medical College, before the class of 1860-61, said, "The animal and vegetable organisms are in fact but extensive and complicated laboratories, in which chemical composition and decomposition are perpetually taking place." Continuing his remarks upon chemical force, he says, "Yet too much must not be expected from it, as has been occasionally, by the enthusiastic. Not unfrequently, indeed, new remedies have been introduced on chemical considerations, of which sound experience has exhibited the fallacy." Why not, I ask, introduce remedies on chemical considerations, if the human organism is a chemical laboratory? We will let him answer this inquiry. On the same page of the above he says, "It should be constantly borne in mind that in the living machine we can not calculate on the results of chemistry with the same certainty as in experiments performed out of the body, and that when organic chemistry is applied to the elucidation of living actions, it may fail. *It is only adapted to reveal the nature of dead tissues and products, or that, in other words, which may have had life, but is no longer living.*" Well answered, by a man who has just announced to his class that the animal organism is but a *chemical laboratory*. Bernard, the eminent Frenchman, in a recent paper on the general effects of medicinal substan-

ces, acknowledges the vital endowment of each particular tissue with a special sensibility, mobility and contractility, but considers it necessary to launch his remedies into "life's red current," that they may come in contact with the histological element, in which resides this mysterious power, entirely forgetting or ignoring all sympathetic action, whether continuous or nervous. Or rather, he *would* do this, but in relating the result of some experiments performed as confirmatory of this theory, is betrayed into the following: "Let strychnine or any other poison which holds them (sensitive fibres) under its influence, be introduced into the circulating fluid, after tying as before the principal vessels of one limb, and it will be found that the operation has been performed in vain, convulsions being produced in that very limb through mere nervous agency, as well as on other points." Are our lights reliable, or are they decoys? A member of the New-Hampshire Medical corps said to me a few months since, while conversing upon life force, that he would accept nothing that was demonstrable without the demonstration, and he considered this talk about vital power as a controlling power in the system, as subtlety made more subtle. He said farther, "We know nothing about it; vital force is not demonstrable. The practice of medicine is empirical." Vital force is demonstrable as far as power or force is demonstrable. Do we know any thing of mind except by its action? Mental action is elevated into a science, and its attributes and manifestations are so fully understood, that asylums are erected as State institutions, into which all who depart from the commonly accepted standard of reason may retreat. It is through this mysterious connection with matter, that this "immaterial" teaches us of its existence and power. Is the power called gravitation, or that called cohesion, demonstrable? None doubt it. Then is the existence of vital power in the animal organism capable of indubitable proof. Prove to me the *existence* of an animal, and I will quote your language as legitimately belonging to vital philosophy. Well, then, if there is a vital principle in the human organism, it is there for some strong purpose. Its departure from the system is death. Its presence there is life. It is the controlling, directing, determining principle.

All other forces or substances found there are amenable to it. Although it is somewhat variable in its action, the same results usually follow like circumstances. It is more easily apprehended in its various properties and their liabilities, by a faithful, intelligent observer, than the alleged operation of chemistry and physics, with their host of "silent partners." Why do we seek for any other power than that with which vegetable and animal organism was endowed in the beginning? Why prostrate vitality to a dependance upon that force which only acts in and upon inorganic substances? Have we no conceptions above the objects of sense?

"Physiology," says Bichat, "would have made much greater progress if all those who studied it had set aside the notions which are *borrowed* from the accessory sciences, as they are termed. But these sciences are not accessory; they are wholly strangers to physiology, and should be banished from it wholly. To say that physiology is made up of the physics of animals is to give a very absurd idea of it. As well might we say that astronomy is the physiology of the stars."—*Bichat's Gen. Anat.*

The vital principle was early known under the names of *anima, callidum, innatum* and *anima vegetans.* Paracelsus "substituted the name of sidereal spirit to suit his dogmas of planetary and demoniac influence." Van Helmont called it *spiritus archæus,* and Stahl, the rational soul. These early philosophers did not seek this "peculiar principle" in the dust, neither in the porringer. Though they had not the clear notions of later times, they made much of what they possessed, and hoped more of the future. It was left for Hunter and Bichat to wrest the philosophy of medicine from the degradation with which it was threatened by chemistry and physics. But after them came a set of aspirants for fame, who talked of life force, chemistry, and physics, as one and the same. If astronomy had been their theme, they doubtless would have attempted to demonstrate the cheesy consistence of the moon. It is by analogy, by inductive reasoning, that we go on, step by step, in investigating the properties and various modifications of this force, which has its standard in health, is changed in disease. I have said that this vital principle is demonstra-

ble; I would rather say, that the evidence of its existence and character is too plain and strong to be refuted or invalidated by any argument deduced from chemical experiment or law of physics. Demonstration properly belongs to mathematics, and mathematical precision does not pertain to medical science. It is not needed. We accept as facts much of that which is called knowledge, attainable only by induction. Analogy is at the foundation of medical philosophy. Zimmerman, on experience in physic, says: "The advantages of analogy extend to objects that are not sufficiently clear in themselves. Analogy, by means of certain general principles, enables us to combine together an infinite number of particular phenomena, that are very distinct from each other. We consider nature by analogy, either by discrimination, or by comparing the phenomena, when it is impossible to know her internally."

I believe it is necessary to attribute *all* the power of life in the animal organism to an inherent vital principle, as the law of life. I believe it to be a creative and sustaining power; a power or principle upon which we should direct all our observations, and from which observations we are to derive *all* our indications for the treatment of disease.

Says Martyn Paine: "It is an element of the properties of the vital principle, that they possess an inherent tendency to return from their morbid to their natural states. This endowment has given rise to therapeutics, and is indispensable to the perpetuation of organic beings." The study of this endowment is our work. Will any one say that this rambling paper, true to its text, is but a reiteration of a *generally received* idea, upon which good medical practice is founded? If so, we are all inexcusable if we do not fully, unqualifiedly, adopt this doctrine of vital force, which has thus far proved incontrovertible. Will any one say that the general practice of medicine *is* conducted on this vital theory at the present time? Where is your evidence. Look at your books. Every page teems with the wonder-working of physical, chemico-vital, chemical force, &c. Open your medical journal, and your eyes are arrested at once by a paper from some celebrated light, announcing a new development of physical or